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While You Were Sleeping

Sandra Leigh King *

I. INTRODUCTION

Just about everyone, even children of the pre-MTV generation, such as myself, vividly remembers the *A&M Records, Inc. v. Napster, Inc.* case from 2001.¹ Illegal file sharing has become a household name across our country and across the world. It has also sparked significant debates in the music and motion pictures industries. However, what has not received as much attention is a quiet problem that your children, if you are a parent, have most likely engaged in at some point.²

The Internet has been described as “a unique and wholly new medium of worldwide human communication” that provides a free exchange of information.³ Unfortunately there are, like all wonderful privileges in life, limits to this freedom of exchange. Boundaries exist even within the Internet, which has recently started to appear much like the Wild West, where some violators are hand-picked and singled out while others are left to continue their wrongful behavior, in spite of blatant copyright infringement.

This “below the radar” (or just “too busy to worry about it”) mentality of file sharing involves illegal video game downloads and illegal sharing of copyrighted games. It is important to remember though, that not all downloading of video games is illegal. For example, there are several websites that allow free downloads of video games and other websites that offer free “trials” of games.⁴ These websites are completely legal and are usually

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1. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001). In 2001, the music recording industry won a substantial legal victory against Napster. Napster’s centralized system allowed anyone with access to the Internet who had downloaded Napster’s free software to have access to thousands of copyrighted songs. Hillary M. Kowalski, Comment, *Peer-to-Peer File Sharing and Technological Sabotage Tactics: No Legislation Required*, 8 MARQ. INTELL. PROP. L. REV. 297, 299 (2004).
2. My pre-teen son provided much useful information for this paper, as have multiple sources who requested they remain anonymous. I am honoring their requests.
3. Jon M. Garon, *Normative Copyright: A Conceptual Framework for Copyright Philosophy and Ethics*, 88 CORNELL L. REV. 1278, 1335 (2003).
4. E.g., Ugoplayer: Simply Irresistable Flash® Games, www.ugoplayer.com (last visited Aug. 19, 2008); Miniclip: Play Free Games, www.miniclip.com (last visited Aug. 19, 2008); Armor Games, www.armorgames.com (last visited Aug. 19, 2008); Arcade Street, www.arcadestreet.com (last visited Aug. 19, 2008); Gamesofgondor.com, www.gamesofgondor.com (last visited Aug. 19, 2008).

sponsored, and approved in part, by the companies that design the video games.

As of 2004, it was reported that software companies were facing piracy rates as high as forty percent.⁵ In 2005, the video game market was estimated at \$28 billion, second only to the entertainment industry.⁶ However, approximately \$2.4 billion has been lost to global piracy.⁷ Some reports estimated that the U.S. video game market was expected to grow to \$15.3 billion by 2008, an indication that the amount that has been lost to global piracy may have been grossly underestimated.⁸ As of 2004, there were over 176 different file-sharing venues on the Internet.⁹ While it is literally impossible to determine the exact number of file-sharing venues in 2008, it is safe to suggest that the number has significantly increased.¹⁰

Some experts have stated that illegal file sharing has contributed up to thirty percent of the overall decline in music sales.¹¹ Further, reverse engineering only exacerbates the problem. It is also important to remember that,

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5. CENTER FOR DEMOCRACY & TECHNOLOGY, MAPPING THE DIGITAL VIDEO COPYRIGHT LANDSCAPE: STAKEHOLDER INTERESTS AND THE INTERNET 4 (2004), <http://www.cdt.org/publications/copyrightmatrix.pdf>.
 6. MARC S. COOPERMAN & MICHAEL L. KRASHIN, PROTECT YOUR VIDEO GAME *Before It's Finished*: Copyright Preregistration is Here 1 (2006), <http://www.bannerwitcoff.com/articles/preregistration.pdf>.
 7. *Id.*
 8. Michael Cerrati, *Video Game Music: Where it Came From, How it is Being Used Today, and Where it is Heading Tomorrow*, 8 VAND. J. ENT. & TECH. L. 293, 303 (2006).
 9. Kowalski, *supra* note 1, at 299. Today, there are various websites that appear to allow illegal sharing of files, including music, video games, movies, and other media. According to my anonymous sources and own research, this list of websites includes, but is not limited to: Warezenenergy, Morpheus, WinMx, Imesh, EDonkey2000, eMule, Overnet, Lime Wire, BitTorrent, AllPSPGames, and Bearshare. Included in this group of websites is RapidShare, which is touted as one of the easiest and largest file-hosting sites with millions of files stored on its servers. I have not provided the URL addresses for these sites so as not to encourage use of them, but they are extremely easy to locate on the World Wide Web. It is important to remember that downloading the software for these sites is not *per se* illegal; rather it is only illegal to use the sites to download copyright-protected material without paying a license fee. Most of the sources I interviewed said that eMule, which uses a torrent format, is their preferred method. These Gen-Y individuals (mostly men) stated that it was fantastic that they could put in a request, go see a movie with their girlfriend, or stay home and go to bed, then wake up the next morning, and the entire movie, video game, or compact disc would be downloaded and ready for viewing.
 10. Kowalski, *supra* note 1, at 299.
 11. RUFUS POLLOCK, P2P, Online File-Sharing, and the Music Industry (2006), http://www.rufuspollock.org/economics/p2p_summary.html.

when the *Napster* case was decided, there were no portable MP3 players readily available like the iPod. Since *Napster*, the file sharing industries have been playing catch-up – always two steps behind and one step forward.

II. HOW DID ALL OF THIS HAPPEN AFTER THE NAPSTER DECISION? THE EVOLUTION OF ILLEGAL VIDEO GAME SHARING¹²

While the majority of us were sleeping, so focused on cases like *Napster*,¹³ *In re Aimster*, and *MGM, Inc. v. Grokster, Ltd.*,¹⁴ a very quiet network of savvy software creators were developing other types of software to get around the problem of a centralized server in order to avoid liability as in the *Napster* case.¹⁵ As these hundreds of sites have developed, millions of people have quietly been using these other software programs to share copyrighted video games.¹⁶ Thus, “[e]ven after the recording industry litigated Napster into obsolescence, new peer-to-peer file-sharing services such as Kazaa, Scour, Aimster, Grokster, AudioGalaxy, FastTrack . . . and others

12. Many valuable articles describe the history of file sharing. See, e.g., Robert Danay, *Copyright vs. Free Expression: The Case of Peer-to-Peer File Sharing of Music in the United Kingdom*, 8 YALE J. L. & TECH. 2 (2006).
13. As we all know, “Napster [Inc.] was, for all intents and purposes, shut down by a preliminary injunction granted to the recording industry in February 2001.” Stan Liebowitz, *File Sharing: Creative Destruction or Just Plain Destruction?*, 49 J.L. & ECON. 1, 5 (2006). After Napster’s demise, “[i]nto the void stepped numerous other file-sharing programs, particularly those that, unlike Napster, were not based on a central server.” *Id.* See also Lime Wire, *Understanding Peer-to-Peer Networking and File Sharing*, <http://www.limewire.com/about/p2p.php> (last visited Aug. 6, 2008) (explaining the central server model that Napster used to direct traffic between individual registered users).
14. “Aimster’s software used the client-server connections provided by AOL [America Online] IM [Instant Messenger] to search the shared files of all Aimster users for matches to the user’s request. Upon locating the file, the software sent an encrypted email to the requester with the requested file attached, again over the AOL IM connection.” Elizabeth Miles, *In re Aimster & MGM, Inc. v. Grokster, Ltd.: Peer-to-Peer and the Sony Doctrine*, 19 BERKELEY TECH. L.J. 21, 32 (2004). “Aimster also offered a feature called Club Aimster, which enabled subscribers to download the network’s most shared songs for a small monthly fee. A paying club member needed only to visit Aimster’s website, view the ‘Aimster Top 40’ list, and click on a title to initiate a search of the network to locate and transmit the file.” *Id.* at 32-33. Aimster was unable to avoid secondary liability because it was unable to show any evidence of non-infringing uses of its system. *Id.*
15. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1004 (9th Cir. 2001).
16. For a brief history of file sharing, see Liebowitz, *supra* note 13, at 1; Sally L. Parker, *The Past, Present, and Future of Protecting One’s Copyright in the Digital Age: What the Entertainment Industry has Done to Protect Its Rights, and Whether This is a Beneficial Strategy for the Copyright Holder and Society*, 5 CHI.-KENT J. INTELL. PROP. 28 (2005).

sprang up and proliferated, creating a widespread international movement.”¹⁷ When the peer-to-peer file-sharing service, Gnutella, first came onto the scene, it was commonly referred to as “GNU Napster” and it included a link to America Online (AOL).¹⁸ This activity flew below the radar until around 2004 when the news media began giving attention to peer-to-peer programs like BitTorrent.¹⁹ However, before discussing the evolution of illegal file sharing and particular video games, it is prudent to discuss where we have been – without focusing too much on the past, as the future is what is most important. We have been sleeping for far too long.

A. Phase One: Centralized servers (or “brokers”)

For those of us who actually remember owning a boom box with a cassette tape player, a simple way to explain peer-to-peer file sharing is what we did in junior high and high school by swapping tapes, and later compact discs, with our friends and making copies. For those of you who belong to the Gen-X or Gen-Y suit, who probably have never owned a cassette tape, perhaps the best way to explain how centralized servers, or brokers, work in the context of file sharing is to refer to some of the more infamous companies who have become household names, including, among others, Napster, Inc.²⁰ Napster is recognized as the most notorious file-sharing service. Napster was eventually held liable for vicarious and contributory copyright in-

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17. Grace J. Bergen, *Litigation as a Tool Against Digital Piracy*, 35 McGEORGE L. REV. 181, 182 (2004).
 18. AOL later stopped the availability of the Gnutella program. *See also* John Borland, *MP3Board sues AOL, Time Warner over Gnutella*, CNET NEWS.COM, Aug. 21, 2000, <http://www.news.com/2100-1023-244748.html>; Janelle Brown, *The Gnutella Paradox: As Soon As an Online Music Trading Service Gets Big Enough to Be Useful, It's Doomed*, SALON.COM, Sept. 29, 2000, http://archive.salon.com/tech/feature/2000/09/29/gnutella_paradox/ (stating that even though Napster was shut down, in as early as September 2000 when this article was posted on the web, “there’s always Gnutella”). While we were sleeping, thinking all was right with the world in 2001 when Napster was taken down and modified to a pay service, the real file-sharing software creators were already hard at work writing code to avoid the detection that could possibly have led to a Napster-like lawsuit. *See id.* It is important to note that when Aimster and Gnutella were brought into the legal system, AOL was a common denominator. This could be perhaps because AOL, at the time in the early years of the Internet, was the leading email and search engine, which has now ceased to be the case.
 19. Adam Pasick, *File-sharing Network Thrives Beneath the Radar*, REUTERS, Nov. 16, 2004, <http://www.interesting-people.org/archives/interesting-people/200411/msg00078.html>.
 20. Napster started off humbly, but quickly attracted more customers in less time than any other online service in history. Matthew Green, *Napster Opens Pandora's Box: Examining How File-Sharing Services Threaten the Enforcement of Copyright on the Internet*, 63 OHIO STATE L. J. 799, 802 n.16 (2002).

fringement. Vicarious infringement describes “[a] person’s liability for an infringing act of someone else, even though the person has not directly committed an act of infringement. For example, a concert theater can be vicariously liable for an infringing performance of a hired band.”²¹ Contributory infringement is defined as “[t]he act of participating in, or contributing to, the infringing acts of another person. The law imposes vicarious liability for contributory infringement.”²² In particular concerning copyrights, contributory infringement involves “[t]he act of either (1) actively inducing, causing, or materially contributing to the infringing conduct of another person, or (2) providing the goods or means necessary to help another person infringe (as by making facilities available for an infringing performance).”²³

For those of us who remember, and perhaps used, the Napster system, it did not require a great amount of creativity to identify infringing material. Characters were rearranged, or perhaps just one or two left off of the end of a title. In the video game context, online infringers often will post the popular game “World of Warcraft” as “War of Worldcraft” in an attempt to avoid liability for copyright infringement.²⁴

B. Phase Two: De-Centralized Central Servers

During and after the *Napster* case, many cyber-pirates quickly realized that a Napster-like “centralized server” model would not go unnoticed as far as illegally downloading copyrighted materials were concerned. The centralized server then was morphed into a two-tier system called FastTrack. The Grokster website, among others, employed the FastTrack system.²⁵ Although the names Grokster and Napster are similar, the technology was different. Unlike the centralized server used in Napster, Grokster employed the two-tiered FastTrack system, “in which the first tier consists of supernodes (pow-

21. BLACK’S LAW DICTIONARY 797 (8th ed. 2004).

22. *Id.* at 796.

23. *Id.*

24. One could argue that the act of purposefully changing the name of a game, song, or movie shows that the poster of the game, music, or film knew that it was illegal to allow such media to be copied by others.

25. Ashish Sharma, *The FastTrack Network: It Uses a Two-Tier Approach [sic] to Search Faster*, PCQUEST, Sept. 12, 2002, <http://pcquest.ciol.com/content/p2p/102091205.asp>.

erful machines with fast connections)²⁶ and the second tier consists of the majority of machines, clusters of which connect to individual supernodes.”²⁷

Like its predecessor Napster, Grokster suffered the same fate. The decision in the *Grokster* case, though, perhaps created more confusion than certainty concerning copyright law. On one hand, the Supreme Court said that peer-to-peer file sharing, when used for purposes such as copyright infringement, is *per se* illegal, but the Court left open the question of how to determine whether a company who posts peer-to-peer software on the internet is purposely inducing its users to violate the law.²⁸ Morpheus, an original FastTrack user, eventually switched to a Gnutella-based system, which has since become the de facto choice of online gamers.²⁹

Under FastTrack, “[c]onnections are initiated to the network by connecting to a central server and choosing a suitable supernode from there. Thanks to this two-tier approach, searches are many magnitudes faster compared to Gnutella-like networks. Once data has been located, downloading takes place in the same manner as Gnutella, by connecting directly to the remote host.”³⁰

Unlike Napster, as of 2002, FastTrack supported a great variety of file formats, such as movies and software applications.³¹ Additionally, FastTrack differed from Napster because of its geographical location, and being “outside [the United States], makes it more difficult for U.S.-based copyright

26. Supernodes are basically computers with broadband connectability that operate in a modified peer-to-peer network. As explained by the Kazaa website, “[a] computer using Kazaa can become a Supernode if they have a modern computer and are accessing the Internet with a broadband connection. Being a Supernode does not affect your PC’s performance noticeably. If your computer is functioning as a Supernode, other Kazaa users in your neighborhood will automatically upload to your machine a small list of files they are sharing, whenever possible, using the same Internet Service Provider. When they search, they send the search request to you as a Supernode. The download will take place between the PC on which the file is shared and the PC that requested the file, not via the Supernode.” Kazaa, Supernodes, <http://kazaa.com/us/help/faq/supernodes.htm> (last visited Aug. 13, 2008).

27. Sharma, *supra* note 25.

28. See *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 939-40 (2005); Tom Zeller, Jr., *Sharing Culture Likely to Pause but Not Wither*, N.Y. TIMES, June 28, 2005, <http://www.nytimes.com/2005/06/28/technology/28peer.html?page-wanted=all>. Ironically, this “uncertainty” dates back to the 1984 Supreme Court decision in *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417 (1984), also known as the “Betamax Case.” This case “has provided an umbrella of protection for technology innovators from claims of contributing to copyright infringement.” Zeller, *supra* note 28.

29. See Sharma, *supra* note 25.

30. *Id.*

31. *Id.*

holders like RIAA [Recording Industry Association of America] to ban it.”³² It was the most popular peer-to-peer network for file swapping over the Internet as of 2002.³³ The Supreme Court’s June 27, 2005 ruling against both Grokster and StreamCast Networks “created serious concern among advocates of file-sharing technology, along with some sighs of relief that the decision left room for future technological innovations.”³⁴

Peer-to-peer software (whose genesis was FastTrack’s decentralized server system) is designed to allow someone, after downloading the software, to search and download files directly from other online users without utilizing a central server. In some ways, peer-to-peer was designed to get around the problem of Napster-like liability by shifting liability to individual users. By allowing companies who distribute peer-to-peer software to turn a “blind eye” to legions of users who use the software to illegally share copyrighted materials, these peer-to-peer networks could perhaps avoid Napster’s fate. Although Grokster closed its site on November 7, 2005, its website suggests that plans exist to establish a legal downloading service soon.³⁵ Whether this will actually come to fruition is unknown.

III. AND THEN THERE WAS GNUTELLA (AND NO, THIS IS NOT ABOUT THE TASTY CHOCOLATE SPREAD WITH A SIMILAR NAME)

Unlike Napster and others that specialized in a music file-sharing niche, Gnutella allows sharing of anything as simple as your prize-winning chili recipe, to a copy of the video game your kids got for Christmas, to the latest version of Linux.³⁶ Gnutella consists of a wide web of materials that can be

32. *Id.*

33. *Id.*

34. Zeller, *supra* note 28. It has been reported that the Supreme Court’s decision in *Grokster* and *StreamCast* would create a new area of uncertainty. *See id.* Since those 2005 decisions, however, most would agree that it is not “uncertainty” *per se* that was created, but rather, a plethora of new ingenious ways to circumvent systems designed to protect copyrighted works. After just three short years, *Grokster*, *StreamCast*, and even *Napster* are distant memories. The future, as discussed later in this paper, is torrents and the multiple Gnutella-based software sharing programs.

35. Grokster.com, <http://www.grokster3g.com> (last visited Aug. 7, 2008) (“The New Grokster 3g Coming Soon to a Desktop Near You: A safe, secure & legal P2P experience . . . NO Adware NO Spyware NO Bundles! NO Viruses NO Hassle: Just the best of what P2P has to offer. Grokster 3G. Be there”).

36. Gnutella News, What is Gnutella?, http://koeln.ccc.de/archiv/hackschiffseiten/information/what_is_gnutella.html (last visited Aug. 1, 2008) [hereinafter *What is Gnutella?*]. Linux, which has been in existence for over two decades, is an operating system that is developed and released under the GNU General Public License and whose source code is freely distributed. Linux Online, What is Linux?, <http://www.linux.org/info/> (last visited Aug. 1, 2008) (“There are now literally hundreds of companies and organizations and an equal number of indi-

shared – whether they are copyright protected or not. Users of Gnutella can choose which files they want to share or can make their entire hard drive available.³⁷ The wide variety and volume of materials being shared out in cyberspace obviously means that policing the Gnutella network users is problematic. Instead of focusing on *one* form of media (whether it be music, video, or games), there is a much deeper and wider pond to wade to find infringers.

Gnutella's model of file sharing does *not* involve a central server to keep track of all user files.³⁸ Basically, here is how Gnutella works:

[A] user starts with a networked computer, which we'll call "A," equipped with a Gnutella "servent" (so called because the program acts as a combination of a "server" and a "client"). Computer "A" will connect to another Gnutella-networked computer, "B." A will then announce that it is "alive" to B, which will in turn announce to all the computers that it is connected to, "C," "D," "E," and "F," that A is alive. The computers C, D, E, and F will then announce to all computers to which they are connected that A is alive; those computers will continue the pattern and announce to the computers they are connected to that computer A is alive.³⁹

This pattern continues like the old 1970s Prell Shampoo commercials where one friend tells another friend, and then that friend tells another, and so on. Thus, it is not hard to understand that the reach of the Gnutella network is geometric. The only apparent restraint on the Gnutella network is the time limitation that occurs when certain computers with matching files are "alive" at the same time.⁴⁰ This is essentially the only similarity to Napster, where users could download files via Napster's central server only from computers that were "alive" and using the Napster network at the time of the download.

Modern examples of these peer-to-peer Gnutella-based systems include popular systems such as Lime Wire,⁴¹ BitTorrent, and eMule (which replaced eDonkey). Peer-to-peer software is designed to allow someone who has

viduals that have released their own versions of operating systems based on the [original] Linux kernel").

37. *What is Gnutella?*, *supra* note 36.

38. Lime Wire, Understanding Peer-to-Peer Networking and File-Sharing, <http://www.limewire.com/about/p2p/php> (last visited Aug. 1, 2008).

39. *Id.*

40. A time limitation is referred to as a "time-to-live" ("TTL") constraint. Basically, a TTL constraint is "the number of layers of computers that the request will reach" within a certain amount of time. *Id.*

41. "Lime Wire is the fastest, easiest, most advanced file sharing program available and it's completely free of spyware, adware and any other bundled software." Lime Wire, About, <http://www.limewire.com/about/> (last visited Aug. 1, 2008).

downloaded the software to search and download files directly from other online users without utilizing a central server.⁴² Based upon my research with the Gen-X and Gen-Y crowds, Lime Wire falls at least somewhere in the number two to four slot of most popular file-sharing sites among this age group, although eMule is by far the preferred site. In fact, Lime Wire is considered the flagship client on the Gnutella network.⁴³ Although it uses a decentralized server (unlike Napster), Lime Wire also claims to have a filtering system to encourage safer, more responsible file-sharing, and perhaps to attempt to avoid Napster-like liability.⁴⁴ Copyright owners can also register their material on Lime Wire if they are interested in blocking their files from being downloaded, uploaded, and shared.⁴⁵

However, unaddressed concerns remain regarding how serious peer-to-peer file-sharing systems are about filtering and the mechanisms they use to monitor the material transmitted through their services. Even if all best efforts were made, and considering that a significant number of copyright owners use Lime Wire's filtering system, there will always be clever hackers who are able to circumvent the system, thus leaving Lime Wire potentially liable for the infringing activity. However, Lime Wire is clever. In the participation platform for its "Filtering System," Lime Wire's website notifies a copyright holder that she must meet two criteria in order to participate in the system: (1) the participant must be a valid copyright owner; and (2) the participant must waive "free promotion" from having her copyrighted work shared on the Lime Wire network.⁴⁶

Requiring a potential participant to be "sure that you don't want the free promotion" almost seems like coercion to *prevent* copyright holders from participating in Lime Wire's Filtering System.⁴⁷ At a minimum, it seeks to *discourage* copyright owners from allowing their copyrighted works to be distributed across the Internet for *free* use to anyone who downloads the works. Thus, this language seems to undermine the entire legislative purpose of the Copyright Act and copyright protection.

Although it appears that Lime Wire is making valiant efforts to prevent illegal file-sharing on its Gnutella-based website, as of February 1, 2008, Lime Wire has admitted on its own website that its Filtering System is in

42. Lime Wire, Understanding Peer-to-Peer Networking and File-Sharing, <http://www.limewire.com/about/p2p/php> (last visited Aug. 1, 2008).

43. Lime Wire, Overview, <http://wiki.limewire.org/index.php?title=Overview> (last visited Aug. 1, 2008).

44. Lime Wire's filtering system requires that a copyright owner who would like to protect her copyrighted material from being downloaded and shared on the Gnutella network create a "Copyright Account." Lime Wire, Beta Filtering System, <http://register.limewire.com/filter/> (last visited Aug. 1, 2008).

45. *Id.*

46. *Id.*

47. *Id.*

“experimental mode.”⁴⁸ Lime Wire specifically asks for copyright owners’ patience while Lime Wire works out the kinks and bugs in its filtering mechanism which is still in development.⁴⁹ This type of language is similar to stating that “the check is in the mail.” There is a promise that the check has been mailed, but no guarantee that the recipient will actually receive it. In my opinion, Lime Wire’s language concerning its proposed “filtering system” is perhaps best described as a veiled attempt to prevent liability for the sharing of copyrighted works using its software. Lime Wire should not be allowed to avoid vicarious or contributory copyright infringement liability by using this language. Instead, Lime Wire should have made all best efforts to perfect its “filtering system” *before* placing its software on the Internet to allow users to upload, download, and share files. Of course, no “filtering system” will ever be perfect. Much to the entertainment industry’s chagrin, even if the best efforts are made, there will always be clever hackers who can circumvent a filtering system.

Beyond the veneer of this type of filtering system, however, is a whole underground of Internet bloggers who post online tips about how to avoid liability while using a Lime Wire system:⁵⁰

The longer a P2P client is connected to the Internet, the more likely one is to expose his or her shared folder to the copyright enforcement of the music industry. During the installation process, the LimeWire client by default automatically sets itself to launch and connect to the Gnutella network when the end user’s computer is powered on (however the mindful end user can disable this during installation.) Since people tend to blow right past the installation wizard, not too much consideration is placed on the consequences of this inaction. *But we can fix that.*⁵¹

The same website then provides detailed instructions about how to potentially avoid “getting caught:”

48. *Id.*

49. *Id.* (“We kindly ask for your patience as we continue to improve our filtering infrastructure. In light of logistical restrictions, Lime Wire *cannot guarantee the outcome of a filtering request*, but we pledge to make a best effort attempt to meet copyright owner filtering requests. We are working to make the Filtering System as effective and error-proof as possible. Right now, our filtering feature is not comprehensive *and many copyrighted files may still be available on the network*. Our goal is to *eventually* filter out all files that copyright owners do not wish to be shared with Lime Wire”) (emphasis added). “If the file has been blacklisted, Lime Wire stops the user from downloading the file.” *Id.*

50. Thomas Mennecke, *Lawsuits, Lime Wire and You*, SLYCK NEWS, Aug. 28, 2007, http://www.slyck.com/story1581_Lawsuits_Lime_Wire_and_You (“Inadvertently running the Lime Wire client, or any P2P client, while sharing files is a recipe for disaster.”)

51. *Id.* (emphasis added).

Open the Lime Wire client. On the tool bar you'll see "File", "View", "Navigation", "Resources", and "Tools". Click and open "Tools". Navigate and click on "Options"; a new window will open. The last option on the left hand side is "Advanced", expand this and click on "System Startup". More than likely, the "Start on System Startup" option will be checked off. Disable this option by simply clicking on the check mark – it should now be an empty box.⁵²

Of course, once Lime Wire is aware of the infringing activity, one could presuppose that Lime Wire should hire better software developers to upgrade its system. However, the reality is that we live in a cat-and-mouse world, and there is a delicate balancing act of protecting copyright owners' rights versus the benefits to which we all have grown accustomed. Consumers benefit from increased accessibility to works, and copyright holders derive fame, revenues, and distribution from this increased accessibility.⁵³

Beyond file-sharing and filtering issues is the whole other realm of open source. Lime Wire has stated that it "believes that the Gnutella network could be and should be one of the core distribution tools on the Internet."⁵⁴ In fact, Lime Wire has in place a method that invites all users who are interested in developing the Gnutella Network to join its "Open Source Project," which Lime Wire hopes will expedite Gnutella research and development.⁵⁵ Developers can use this open source code as a starting point in an endless game of cat-and-mouse with enforcement agencies and copyright holders.⁵⁶

This "invitation" to improve code and/or perhaps circumvent copyright filters is very reminiscent of the bygone days when Napster's internal memos suggested that the company was encouraging Napster users to share and

52. *Id.* By citing this information, I am not encouraging others to circumvent built-in protections against illegally sharing copyrighted material. The purpose of this quote is to demonstrate the blatant culture of illegal file-sharing, and how utterly impossible it will be for the government and copyright holders to protect their respective interests. For a good practical explanation of circumvention and anti-circumvention, see Chilling Effects Clearinghouse, FAQ About Circumvention, <http://www.chillingeffects.org/anticircumvention/faq.cgi> (last visited Aug. 1, 2008) (discussing frequently asked questions about reverse engineering, circumvention, and anti-circumvention).

53. For a good discussion on web site modification software and the core issues behind copyright law, see Sumit R. Shah, *Modding the Web: Secondary Liability Under Copyright and Web Modification Software in a Post-Grokster World*, 85 TEX. L. REV. 703 (2007).

54. Lime Wire, Overview, <http://wiki.limewire.org/index.php?title=Overview> (last visited Aug. 1, 2008).

55. *Id.*

56. *Id.*

share as often as possible.⁵⁷ Such an invitation should, and most likely will, be the basis for a vicarious infringement and contributory infringement case against Lime Wire in the future. Further, as discussed elsewhere in this paper, any time an open source code is available to users to circumvent security measures, whether on the Internet or on handheld game consoles, liability for copyright infringement exists.

IV. AND THEN THE TORRENTS CAME. . .

When I first started studying torrents, the first image that came to mind once I understood how they worked was an image of an ant colony in my backyard. Torrents are similar to an online ant colony in that they are a very complicated way of communicating information through the use of very tiny creatures, in this case bits or bytes.⁵⁸ Little ants pillage picnic baskets, just as bits or bytes are pillaged in a torrent program system. Each ant takes a small piece of the whole, but unlike the ant analogy, torrents allow the whole to be reconstructed in the end. BitTorrent,⁵⁹ unlike Napster, Grokster, iMesh, or other FastTrack programs,⁶⁰ is a peer-to-peer program that is perhaps one of the cleverest ways to avoid Napster-like liability.⁶¹

But exactly how does a torrent system work? The BitTorrent system, instead of making available an entire file of copyrighted material, makes only one part of the material available for sharing. The BitTorrent software allows users to download that specific part and then also does the user's "shopping" for the other parts of the whole work. The "shopper" then attaches in proper order the other parts (known as torrents) to complete an entire copy-

57. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1020 n.5 (9th Cir. 2001) (describing how the "district court found actual knowledge because [of an internal] document written by Napster co-founder Sean Parker that mentioned the need to remain ignorant of users' real names and IP addresses since they are exchanging pirated music").

58. Torrents, which vary in size, include tracker information, piece size, uncompressed file size, and comments. "A .torrent file is a file that contains the basic information about a file or set of files. This includes the file names, sizes, the date created and some other information." Track Trap, What is a Torrent?, <http://www.tracktrap.com/whatis.php> (last visited Aug. 1, 2008). These torrents are then uploaded to a popular peer-to-peer website by a hacker or group of hackers. *Id.*

59. BitTorrent, www.bittorrent.com (last visited Aug. 1, 2008).

60. Kazaa, Grokster, iMesh and others use FastTrack peer-to-peer software protocol. Morpheus also originally used the FastTrack protocol but was later banished.

61. Two competing BitTorrent clients are uTorrent and Azureus Bit Torrent. uTorrent has apparently surpassed Azureus BitTorrent according to a sample of 1.5 million personal computers worldwide. Posting of Eliot van Buskirk to Wired Blog Network Listening Post, <http://blog.wired.com/music/> (Apr. 16, 2008 11:50 EST).

righted file. This process is similar to making a quilt where the quilter gets a copy of a square, and then there is some magical quilting genie that goes out and gets all of the other squares needed to make a complete quilted blanket.⁶² Large torrents that take lots of time to download together are what are known as “warez.” When a user links all of the torrents together, the user has a complete package of warez. Multiple pieces of software are called “warez.” One “ware” (short for software) is equal to one piece of software (e.g., a video game, movie, television show, music recording, or some other form of electronic entertainment). “Warez web sites are [basically] Internet locations that offer software and other programs which have been illegally manipulated to defeat or bypass copyright protection programming.”⁶³ The term generally refers to illegal releases by organized groups of software that includes everything but the box and the manual.⁶⁴

Even after KaZaa and Grokster, much activity flew below the radar until around 2004 when the news media started giving attention to peer-to-peer programs like BitTorrent.⁶⁵ “BitTorrent is a protocol for high speed file-sharing specifically targeted at video and audio content. Originally developed by San Francisco programmer Bram Cohen, and presented at DefCon in Las Vegas in 2001, BitTorrent has been largely used for illegally sharing games, television shows and movies over the Internet.”⁶⁶

However, BitTorrent flew below the radar and evaded prosecution for contributory copyright infringement because its software could be used for legal purposes as well. For example, the popular operating system Linux, which is user-generated software similar to a Windows platform, has not only been shared for years among Linux devotees, but also modified by them as well.⁶⁷ In 2004, the Motion Picture Association of America initiated a lawsuit against BitTorrent sites and ultimately shut down the bulk of illegal

62. See Expressindia.com, *File-sharing Network Thrives Beneath the Radar*, INDIAN EXPRESS NEWSPAPERS, Nov. 4, 2004, <http://www.expressindia.com/news/fullstory.php?newsid=38049> [hereinafter *Expressindia.com*].

63. Kenneth L. Wainstein, *Texas Man Pleads Guilty to Felony Copyright Infringement for Selling More Than \$1 Million of Copyright Protected Software and Video Games Over the Internet*, U.S. DEPT. OF JUSTICE, June 23, 2005, <http://www.usdoj.gov/criminal/cybercrime/poncedeleonPlea/htm>.

64. *Id.* Wareenergy.com alone, for example, “reaches approximately 22,259 U.S. monthly people. The site appeals to a largely male audience.” Quantcast, Wareenergy.com, <http://quantcast.com/wareenergy.com/> (last visited on Aug. 13, 2008).

65. *Expressindia.com*, *supra* note 62.

66. Patrick Turner, *Digital Video Copyright Protection with File-Based Content*, 16 MEDIA L. & POL’Y 165, 206 (2007).

67. *Id.*

file-sharing sites.⁶⁸ Additionally in 2004, Cache Logic estimated that thirty-five percent of all Internet traffic was from BitTorrent.⁶⁹ It is important to note, however, that not all torrent-based sites encourage or allow illegal activity, and there are legitimate sites available to users who wish to download materials legally.⁷⁰

In 2007, after much pressure from the Motion Picture Association of America, BitTorrent agreed to *only* allow sharing of non-pirated files.⁷¹ The service is a paid service but also allows for free downloads, similar to Apple's iTunes and what has become of the next generation of Napster. However, torrents are still alive and thriving. Furthermore, torrents are the preferred way for users to steal material off the Internet. Websites like Back 2 the Roots allow torrent downloads.⁷² In particular, Back 2 the Roots publishes old Amiga video games, and even though these Amiga games are no longer readily accessible, it is still illegal to publish copies of them.⁷³ A

68. *Id.* at 206 n.234 (citing John Borland, *MPAA Sues Newsgroup, P2P Search Sites*, CNET News.com, Feb. 23, 2006, http://news.com.com/MPAA+sues+newsgroup,+P2P+search+sites/2100-1030_3-6042739.html).

69. *Id.* at 206.

70. Some of the best legitimate/legal torrent sites for movies and music include: <http://legaltorrents.com>; <http://torrentocracy.com/torrents>; <http://www.filesoup.com>; <http://bt.etree.org>. See also *Expressindia.com*, *supra* note 62; Janko Roettgers, *Ten Sites for Free and Legal Torrents*, NEWTEEVEE, Mar. 3, 2007, <http://newteevee.com/2007/03/03/ten-sites-for-free-and-legal-torrents> (providing a list of more legal torrent-based sites).

71. Dan Nicolae Alexa, *Bit Torrent Says Goodbye to Pirated Content, Says Hello to Legal Downloads*, PLAYFULS.COM, Feb. 26, 2007, http://www.playfuls.com/news_06347_Bit_Torrent_Says_Goodbye_to_Pirated_Content_Says_Hello_to_LegalDownloads.html.

72. See DJ Janosh (JPS), July 2007mix by DJ Janosh (JPS) - Back 2 the Roots - Old School Electro!!!.rar torrent download locations, <http://www.torrentz.com/84a210070bbcb978c684d153b98b798ddc1b266d> (last visited Aug. 1, 2008); see also Back to the Roots, <http://www.back2roots.org> (last visited Aug. 13, 2008) ("Back to the Roots is a 100% non profit project, we are a bunch of volunteers who maintain this project in their freetime with the help of numerous contributors. We all together donate large amounts of time, content, online costs, hardware, connectivity and bandwidth to provide you a high quality free service. If you like our work, then feel free to contribute").

73. Branko's Weblog, <http://www.tekstadventure.nl/branko/blog/2004/12/all-games-illegal> (Dec. 3, 2004 15:56 EST). I am by no means suggesting that all material on Back 2 the Roots is infringing. On the contrary, it has been reported on blogs that perhaps Back 2 the Roots has obtained licenses that permit them to publish old Amiga games. *Id.* The best course of action would be to take advantage of a "contact us" forum to make sure that the user is not downloading an illegally obtained copy. Common sense would tell the user that, just as there is no such thing as a free lunch, the ability to download a video game for free probably means the game was illegally obtained. Other-

common misconception among today's youth, and even educated adults, is that it is acceptable to copy something that they cannot find in circulation.⁷⁴ Back 2 the Roots has been shut down on multiple occasions after receiving DMCA take-down notices from IDSA (now ESA), which is the organization that claims to represent copyright holders whose works are available through Back 2 the Roots.⁷⁵

V. FILE SHARING FILTERS

Anyone who has multiple security systems installed on her computer knows that even the best filters do not catch everything. Just like annoying pop-ups distract users when working online from home or simply checking email, filters fail when it comes to keeping infringing activity off a website.

RapidShare is a file-sharing website with two tiers of file sharing: a basic level and a "premium" level.⁷⁶ RapidShare users simply pay a fee to download whatever material they want.⁷⁷ Unlike Napster, which uses a central server, RapidShare involves multiple servers.⁷⁸ Recently, RapidShare was sued in a German court for illegal file sharing. RapidShare lost the lawsuit and could face shutdown if it is unable to comply with the terms of the judgment.⁷⁹ Dr. Harald Heker, the director of GEMA (the German version of the RIAA), stated that this decision

wise, it would be clearly stated that the game is free (e.g. shareware). If the game was illegally obtained, the "free" video game could cost you thousands of dollars in fines later on.

74. On the website Chilling Effects, the frequently asked questions section accurately, and in laymen's terms, explains the law on this topic. Chilling Effects, Frequently Asked Questions (and Answers) about Chilling Effects Clearinghouse, <http://www.chillingeffects.org/revers/faq.cgi>. (last visited Aug. 13, 2008); see also The Entertainment Software Association, Anti-Piracy FAQs, http://www.theesa.com/policy/antipiracy_faq.asp#4 (last visited Aug. 13, 2008) ("[T]he current availability of a game in stores is irrelevant to its copyright status. Copyrights do not enter the public domain just because the works or products they protect are no longer commercially exploited or widely available. Therefore, the copyrights of games are valid even if the games are not found on store shelves, and copying or distributing those games is a copyright infringement").

75. See Branko's Weblog, *supra* note 73.

76. What's RapidShare?, <http://www.whatsrapidshare.com> (last visited Aug. 13, 2008).

77. *Id.*

78. *Id.*

79. Jacqui Cheng, *No Safe Harbor for RapidShare in Copyright Infringement Case*, ARS TECHNICA, Jan. 28, 2008, <http://arstechnica.com/news.ars/post/20080129-no-safe-harbor-for-rapidshare-in-copyright-infringement-case.html>.

[S]ends out a clear signal that any services, which derive financial benefit from unlawful uses of our works, will have to take extensive measures to protect the rights owners and cannot simply evade liability by referring to the action of individual users. With this landmark decision, the way has been paved for instituting proceedings against other similar services.⁸⁰

Surely, this ruling causes concern for services like YouTube and other social networking sites that allow file sharing.⁸¹

A discussion of sharing copyrighted material over the Internet would be incomplete without addressing YouTube and its phenomenal international and cultural impact. In July 2006, YouTube was slapped with a lawsuit alleging video copyright infringement.⁸² The crux of this lawsuit was about news footage.⁸³ Later in October 2007, YouTube responded to these infringement claims by creating an anti-piracy filter system, which was “designed to give copyright owners the ability to automatically block their content from being posted by third parties.”⁸⁴ It is unclear today, though, how this anti-piracy “filter” will affect video game sharing on the Internet, particularly in a torrent-like system that is almost impossible to police. Bloggers have posted that “[w]hen Youtube talk [sic] about not posting copyright infringement, they never mention video games.”⁸⁵ Additionally, the recent writers’ strike from November 5, 2007 to February 12, 2008 brought to the public’s attention the importance of personal copyright interests of those who have created, or assisted in creating, an artistic work.

In addition to YouTube’s alleged infringement, Comcast, which provides broadband Internet service, has also been forced to deal with allegations that its filtering system is ineffectual. On October 23, 2007, it was reported that Comcast’s broadband Internet service was going to face law-

80. *Id.* Had this suit been brought in the United States, then the website operator could have argued that the DMCA safe harbor provision applied and thus protected against liability as long as the website operator promptly removed infringing material from the site after receiving a take-down notice. As of the date of the completion of this paper, it is unclear whether RapidShare has complied with the German order.

81. Cheng, *supra* note 79.

82. James Montgomery, *YouTube Slapped With First Copyright Lawsuit For Video Posted Without Permission*, MTV, July 19, 2006, <http://www.mtv.com/news/articles/1536695/20060719/index.jhtml?headlines=true>.

83. *Id.*

84. *Id.*

85. Posting of Notalot to <http://www.digitalspy.co.uk/forums/showthread.php?p=16812346> (July 31, 2007, 15:35 EST).

suits over its filtering system.⁸⁶ As evidenced by the allegations against YouTube and Comcast, filters are clearly not the answer, and all of us need to come together to find a solution that allows everyone to get along.

VI. HOW REVERSE ENGINEERING AFFECTS AND EVEN ENCOURAGES ILLEGAL FILE SHARING

Video games are not only shared by peer-to-peer systems, but also by circumventing otherwise legal systems that allow a purchaser of a video game's hard copy CD to play online.⁸⁷ Reverse engineering is defined as "the general process of analyzing a technology specifically to ascertain how it was designed or how it operates."⁸⁸ When individuals reverse engineer software, these "researchers are able to examine the strength of systems and identify their weaknesses in terms of performance, security, and interoperability."⁸⁹ It is important to note that it is legal to take apart something by reverse engineering. The problem occurs, for purposes of this paper, when reverse engineering leads to the circumvention of the copyright protections of game software and, as previously discussed, handheld devices that operate popular software.⁹⁰ A recent example of reverse engineering being used to circumvent copyright protections is *Davidson & Associates, Inc. v. Internet Gateway*, which has received substantial buzz in the legal and technology communities.⁹¹

VII. REVERSE ENGINEERING: BLIZZARD'S FIRST RODEO (INTERNET GATEWAY)

In *Davidson & Associates, Inc. v. Internet Gateway*, Davidson & Associates conducted business under the name Blizzard Entertainment ("Bliz-

86. Chris Soghoian, *Comcast to Face Lawsuits Over BitTorrent Filtering*, CNET NEWS.COM, Oct. 23, 2007, http://www.cnet.com/8301-13739_1-9802410-46.html?tag=bl.

87. See *Davidson & Assocs., Inc. v. Internet Gateway*, 334 F. Supp. 2d 1164, 1168 (E.D. Mo. 2004).

88. Chilling Effects Clearinghouse, *Frequently Asked Questions about Reverse Engineering*, <http://www.chillingeffects.org/revers/faq.cgi> (last visited July 26, 2008).

89. *Id.*

90. See, e.g., *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989) (discussing reverse engineering of unpatented board hulls); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974) (involving reverse engineering of a synthetic crystal developed to detect ionizing radiation).

91. *Davidson*, 334 F. Supp. 2d at 1169; see generally Paul J. Neufeld, *Circumventing the Competition: The Reverse Engineering Exemption in DMCA § 1201*, 26 REV. LITIG. 525, 525 (2007).

zard”) and Vivendi Universal Games, Inc. (“Vivendi”).⁹² Blizzard produced popular computer games such as “Diablo,” “StarCraft,” and “WarCraft” and also hosted an online gaming service that allowed people who purchased these games to play online with other game lovers.⁹³ Gamers could battle against one another, join multi-player games, keep track of win/loss records, participate in tournaments with elimination rounds, and participate in online chat rooms and other social-interaction mechanisms. At the time Blizzard filed suit, it had sold millions of copies of its games and earned revenues in excess of \$480 million since 1998.⁹⁴ This figure has increased, according to various websites, to over \$800 million.⁹⁵

Blizzard’s service is called “Battle.net.”⁹⁶ The issue in *Davidson* was “whether three software programmers who created the BnetD server – which interoperates with Blizzard video games online – violated the Digital Millennium Copyright Act (DMCA) and Blizzard Games’ end user license agreement (EULA).”⁹⁷ The game server “BnetD was an open source program that let gamers play popular Blizzard titles like [World of] Warcraft with other gamers on servers that don’t belong to Blizzard’s Battle.net service. Blizzard argued that the programmers . . . also violated several parts of Blizzard’s EULA, including a section on reverse engineering.”⁹⁸

Davidson & Associates sued multiple defendants who had legally purchased Blizzard games and then reverse engineered the Battle.net software, which is free to users who have legally purchased Blizzard games.⁹⁹ Similar

92. *Davidson & Assocs., Inc. v. Jung*, 422 F.3d 630, 633 (8th Cir. 2005). Jung is the president, co-owner, and day-to-day-operator of Internet Gateway.

93. *See generally* Neufeld, *supra* note 91, at 525.

94. *Jung*, 422 F.3d at 633.

95. *See, e.g.*, WarCraft, Blizzard’s 2007 Revenue Exceed 800 Million, <http://www.warcraft.juzwiesz.pl/blizzards-2007-revenues-exceed-800-million/> (last visited Aug. 13, 2008); World of Warcraft, Blizzard Loots \$1.2 Billion From 2007 Thanks to WoW, <http://kotaku.com/350895/blizzard-loots-12-billion-from-2007-thanks-to-wow> (last visited July 26, 2008).

96. *Jung*, 422 F.3d at 633.

97. Electronic Frontier Foundation, *Blizzard v. BNETD*, <http://www EFF.org/cases/blizzard-v-bnetd> (last visited Aug. 13, 2008).

98. *Id.*

99. “Congress has also passed legislation in a number of different technological areas specifically permitting reverse engineering. The Semiconductor Chip Protection Act (SCPA) explicitly includes a reverse engineering privilege allowing semiconductor chip designers to study the layout of circuits and incorporate that knowledge into the design of new chips.” Chilling Effects Clearinghouse, FAQ about Reverse Engineering, <http://www.chillingeffects.org/reverse/faq.cgi> (last visited July 26, 2008). A good resource for those who are more technologically minded concerning the different treatments of reverse engineering and fair use is Joe Linhoff, *Video Games and Reverse Engineer-*

to that in *UMG Recordings, Inc. v. MP3.com, Inc.*,¹⁰⁰ the Battle.net software contained a “check” to ensure that only a *bona fide* purchaser of a Blizzard game was allowed to play online.¹⁰¹ However, the defendants in *Davidson* developed a way to circumvent that check, which allowed people across cyberspace to play pirated copies of Blizzard games.¹⁰² Since the morphed version of Battle.net, called BnetD, did not recognize whether the copy of Blizzard’s game was legally purchased or pirated, Blizzard sued, alleging lost sales of its most popular games.¹⁰³ In fact, one of the defendants in *Davidson* made an unauthorized copy of a Blizzard game so that he could test the BnetD system.¹⁰⁴ While the individual defendants never recommended or advised anyone to play pirated copies of the popular Blizzard games using their BnetD server, they certainly knew that the BnetD emulator was being used for that purpose.¹⁰⁵

The more insidious and problematic aspect of the defendants’ conduct in *Davidson* was that the defendants made the BnetD software an “open source” application so that users could copy the source code¹⁰⁶ and distribute

ing: *Before and After and the Digital Millennium Copyright Act*, 3 J. ON TELECOMM. & HIGH TECH L. 209 (2003).

100. *UMG Recordings, Inc. v. MP3.com, Inc.*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000).

101. This “check” was in the form of CD Key information, which is “a unique sequence of alphanumeric characters that is printed on a sticker attached to the case in which the CD-ROM was packaged. The user of the game [has to] input the CD Key into his or her computer when installing the game, and [the CD Key is] subsequently stored on the computer for use in logging on to the Battle.net service.” *Davidson & Assocs., Inc. v. Internet Gateway*, 334 F. Supp. 2d 1164, 1169 (E.D. Mo. 2004).

102. *Id.*

103. *Id.* at 1172. A significant portion of *Davidson* deals with whether state contract law is preempted by federal copyright law. Suffice it to say, the district court held that federal copyright law governs and trumps state law concerning End Use License Agreements and Terms of Use Agreements. *Id.* However, a lengthy discussion concerning the court’s rationale concerning preemption would frustrate the purpose of this paper.

104. *Id.* at 1173.

105. *Id.* at 1174.

106. “Source code is the category of computer language instructions that is most frequently written and read by software programmers. A computer cannot generally run a program in source code form though. The source code is translated, with the use of an assembler or compiler, into a language form that contains instructions to the computer known as object code. Object code consists of numeric codes specifying each of the computer instructions that must be executed, as well as the locations in memory of the data on which the instructions are to operate. While source code and object code are commonly referred to as different classes of computer language, these terms actually describe the series of transformations a program goes through when being con-

it to others who could change the code and develop additional Battle.net emulators based on the BnetD source code.¹⁰⁷ The defendants also distributed various binary versions of their BnetD program that made it more convenient for users to set up and access the BnetD program.¹⁰⁸

Blizzard allegedly violated the anti-trafficking statute¹⁰⁹ and the anti-circumvention statute.¹¹⁰ While the defendants argued that they had simply reverse engineered Battle.net to eliminate banners and other distractions on the screen while a user played a Blizzard game and to prevent users from playing illegally obtained copies of Blizzard games, Blizzard argued that the defendants' sole purpose in reverse engineering Battle.net into BnetD was to copy and distribute Blizzard computer files.¹¹¹ Apparently, the Eighth Circuit agreed with Blizzard and affirmed the district court's order granting Blizzard's motion for summary judgment.¹¹² The *Davidson* case was eventually settled out of court.¹¹³ As discussed later in this paper, the proposed bill

verted from a higher level language more easily comprehensible to humans to the lower level language of computer operations." Chilling Effects Clearinghouse, FAQ about Reverse Engineering, <http://www.chillingeffects.org/reverse/faq.cgi> (last visited July 26, 2008).

107. *Davidson*, 334 F. Supp. 2d at 1174. Open source software is "usually not sold for profit, includes both human-readable source code and machine-readable object code, and allows users to freely copy, modify, or distribute the software." BLACK'S LAW DICTIONARY 1124 (8th ed. 2004).

108. *Davidson*, 334 F. Supp. 2d at 1174.

109. The anti-trafficking statute states, "[n]o person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that (A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title; (B) has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to work protected under this title; or (C) is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title." 17 U.S.C. § 1201(a)(2) (1999).

110. The anti-circumvention statute states, "[n]o person shall circumvent a technological measure that *effectively controls* access to a work [protected under copyright law]. 17 U.S.C. § 1201(a)(1)(A) (1999) (emphasis added). To circumvent a technological measure means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner. 17 U.S.C. § 1201(3)(A) (1999).

111. *Davidson*, 334 F. Supp. 2d at 1185.

112. *Id.* at 1187.

113. For a good discussion of social and economic harm in the wake of the *Davidson* case, see generally Christopher Riley, *The Need for Software Innovation*

H.R. 1201, known as the “Freedom and Innovation Revitalizing U.S. Entrepreneurship Act,” could change the Digital Millennium Copyright Act that governed the *Davidson* case.¹¹⁴ If H.R. 1201 is passed, *Davidson* will most likely become obsolete.

VIII. BLIZZARD’S OTHER’S RODEO: MDY’S GLIDER PROGRAM

As if Blizzard’s nightmarish litigation in *Davidson* was not enough, Blizzard has also had to fight MDY Industries, which distributed and sold a software tool called WoWGliders for \$25.00 that allowed World of Warcraft players to automatically perform tedious tasks without the user even being present at his or her computer.¹¹⁵ Warden (also known as Warden Client) is code included in Blizzard’s video games designed to prevent cheating, including gamers’ use of WoWGliders.¹¹⁶ While the user is playing the game, Warden collects data on the user’s computer and sends that data back to Blizzard. “Warden enforces Blizzard’s rights by running targeted scans of the user’s environment for the presence and/or use of ‘signatures’ of known unauthorized third party programs that facilitate cheating or allow the modification of the WoW interface, environment, and/or experience in any way not authorized by Blizzard.”¹¹⁷ When Warden detects that a user is attempting to run an unauthorized copy of WoW, Blizzard denies that user access to the copyrighted WoW gaming environment.”¹¹⁸

The *MDY Industries v. Blizzard Entertainment* decision involved game play automation software called Glider (also known as WoWGliders or MMOGlider) sold by MDY – WoWGliders was for the World of Warcraft game.¹¹⁹ According to Glider’s website, “Glider is a tool that plays your

Policy 21-23 (Yale Law Sch. Working Paper Series, Jan. 2007), available at <http://ssrn.com/abstract=910045>.

114. Erin Humiston, *The FAIR USE Act: Anything But Fair to Consumers, Innovators, Trade*, REUTERS, Mar. 10, 2008, <http://www.reuters.com/article/pressRelease/idUS143902+10-Mar-2008+PRN20080310>; Game Politics, *Breaking: ECA Takes a Stand on Fair Use, Disses DMCA*, Oct. 26, 2007, <http://www.gamepolitics.com/2007/10/26/breaking-eca-takes-stand-fair-use-disses-dmca>.

115. *Computer Technology Law Report*, Volume 8 Number 6, Mar. 16, 2007, available at <http://subscript.bna.com/SAMPLES/ecd.nsf/5bf57aad1692eb2585256d0300601d30/b2121f8f5fc569c68525729d00821b35?OpenDocument> (last visited Mar.8, 2008).

116. *Id.*

117. Def.’s Answer to First Am. Compl., Countercls., and Third Party Compl. 10, Feb. 16, 2007, No. 2-06-cv-02555-PHX-DGC (D. Az.).

118. *Id.*

119. Patent Arcade, *Case Update: MDY Industries, LLC v. Blizzard Entertainment, Inc. et al*, Aug. 27, 2007, <http://www.patentacade.com/2007/08/case-update-mdy-industries-llc-v.html> [hereinafter *Patent Arcade Case Update*]; see also Glider, <http://www.mmoglider.com> (last visited July 26, 2008).

World of Warcraft character for you, the way you want it. It grinds, it loots, it skins, it heals, it even farms soul shards . . . *without you*.”¹²⁰ MDY brought suit seeking a declaratory judgment that it had not violated Blizzard’s intellectual property rights by selling the Glider program.¹²¹ The game companies, on the other hand, alleged that “WoWGlider allows users to automate gameplay such that they can manipulate the [World of Warcraft] gaming environment for their character in violation of the EULA and the TOU, and artificially increase their economic standing and rank within the game, without so much as being present at [their] computer.”¹²²

The District Court of Arizona noted that users of WoWGlider or MMOGlider must pay MDY \$25.00 to use its service.¹²³ For an “elite” upgrade version, users had to pay an additional subscription fee of \$5.00 per month.¹²⁴ “When users launch WoW in connection with WoWGlider, they create unauthorized, infringing copies of WoW.”¹²⁵ MDY allegedly “knew or had reason to know that users were creating infringing copies of WoW.”¹²⁶

The smoking gun in *MDY Industries* was that Glider’s own webpage stated, “Glider is against the Terms of Service as provided by Blizzard for World of Warcraft. If you are detected using Glider, your account will be suspended for 72 hours and very likely banned completely.”¹²⁷ While Glider does not violate any of the terms listed under Blizzard’s “Client/Server Manipulation Policy,” it is still a third-party program.¹²⁸ Blizzard’s Terms of Service are overly broad in terms of what constitutes a violation of the Client/Server Manipulation Policy, meaning that Blizzard can find someone in violation for pretty much anything it wants.¹²⁹ This situation should sound familiar, as it was what led to the downfall of Napster.¹³⁰

120. Glider, <http://www.mmoglider.com> (last visited July 26, 2008) (emphasis in original).

121. *Patent Arcade Case Update*, *supra* note 119.

122. *Computer Technology Law Report*, Volume 8 Number 6, March 16, 2007, available at <http://subscript.bna.com/SAMPLES/ecd.nsf/5bf57aad1692eb2585256d0300601d30/b2121f8f5fc569c68525729d00821b35?OpenDocument>, last accessed on March 8, 2008.

123. Def.’s Answer to First Am. Compl., Countercls. and Third Party Compl 11, Feb. 16, 2007, No. 2-06-cv-02555-PHX-DGC (D. Az.).

124. *Id.*

125. *Id.* at 15.

126. *Id.* at 11.

127. Glider, Frequently Asked Questions About Glider, <http://mmoglider.com/FAQ.aspx> (last visited July 26, 2008) (“Glider provides a number of features to help lower the risk of detection”).

128. *Id.*

129. *Id.*

130. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1010 n.5 (9th Cir. 2001).

Following the lawsuit, Glider's website now states that "[r]unning Glider on non-Blizzard servers is unsupported, as the client on such servers is generally confused, old, or both. We strongly recommend running Glider on official, paid servers. Come on, it's a great game, there's no reason to try to job Blizzard out of their monthly fee."¹³¹

IX. NON-INTERNET FILE SHARING, COPYING AND OTHER ILLEGAL MECHANISMS: ILLEGAL COPIES, BOOTLEG COPIES, EMULATORS, MOD CHIPS, AND MODIFIED GAME CONSOLES

Imagine this: you build a gadget that allows users to download and play pirated games on their Nintendo DS handheld consoles – the most popular handheld game console among today's youth. Then, you think to yourself, why should I stop here? You could also sell pirated games. You begin to think this could work and you would never get caught. Think again.

In December 2007, in the heat of the holiday season, the Singapore Police conducted raids on local stores that were selling illegal video games.¹³² These same shops also sold "gadgets that allowed users to download and play pirated games on their Nintendo DS handheld consoles."¹³³ Although games are normally encrypted with "copyright protection mechanisms," gadgets being sold rendered the mechanisms useless "by fooling the system into thinking it was an original game cartridge."¹³⁴ The combination of the gadgets and the sale of illegal copies obviously cuts into a significant portion of Nintendo's handheld game system market just at the time of year when parents are scrambling to find the hottest game and latest console for their children.¹³⁵ The Singapore raid alone resulted in the confiscation of over 200 devices with a total U.S. dollar value of at least \$5,800.¹³⁶ Even more alarming is that this was not Singapore's first incident concerning the illegal distri-

131. Glider, Frequently Asked Questions About Glider, <http://mmoglider.com-FAQ.aspx> (last visited July 26, 2008).

132. Gladys Mirandah, *Internet Law - Video-game Industry Watchdog Clamps Down on Illegal Activity in Singapore*, INTERNET BUS. L. SERVS., Dec. 19, 2007, http://www.ibls.com/internet_law_news_portal_view.aspx?s=latestnews&id=1938.

133. *Id.*

134. *Id.*

135. As a mother of a pre-teen son, I have personally experienced the desperation of trying to find the hottest new Nintendo game just before the holiday season. Scenes of parents grabbing games out of other parents' hands, people forming lines in the middle of the night outside stores selling the game, and other such ridiculous episodes are now commonplace and expected when the holiday season begins, and even later for those who have procrastinated their holiday shopping.

136. Mirandah, *supra* note 132.

bution and sale of pirated software and video games. In November 2006, Singapore police seized approximately 40,000 CDs containing software and video games.¹³⁷

Obviously, video game manufacturers create ways to secure their products, just like retail stores embed certain products with detectors that go off when a customer tries to take the product without paying for it. However, clever pirates have figured out multiple ways to circumvent embedded security measures put into place by video game companies. One particular circumvention technique is the use of modification chips ("mod chips"). Mod chips are small electronic devices that are used to modify or disable built-in security restrictions on video game consoles and handheld devices. Basically, mod chips circumvent the embedded security system in the console and trick the device into thinking that the game in use is a legitimate, authorized copy.¹³⁸

Another technique is the use of emulators. A gamer can use an emulator to play games on a platform other than the one for which the game was originally designed.¹³⁹ One of the biggest threats to the intellectual property rights of video games developers is the ability of users to take advantage of

137. Singapore on the Web, *Police Arrest 12 People in Island-Wide Anti-Piracy Raids: 12 Nabbed in Island-Wide Anti-Piracy Raid*, Nov. 30, 2006, http://www.singaporeontheweb.net/previous2006/011206_policearrest12peoplein-islandwideantipiracyraids.htm. Under Singapore law, a person who is found guilty of distributing or selling infringing articles is subject to a \$10,000 fine (Singapore dollars) and up to a maximum fine of \$100,000 (Singapore dollars) and/or incarceration for a term that does not exceed five years.

138. Nintendo Corporate Information, Legal Information, <http://www.nintendo.com/corp/legal.jsp> (last visited July 31, 2008) ("Mod chips circumvent the security embedded into Nintendo's products. To install the mod chips into a Nintendo hardware system, it is necessary to dismantle the product and, in some instances, remove components. Use of mod chips voids the consumer warranty and are illegal under the Digital Millennium Copyright Act (DMCA). Mod chips have also been adjudicated to be illegal in various countries around the world, including the United States, the United Kingdom and Hong Kong. Countries are also adopting similar laws aimed at illegal circumvention of security measures. People caught selling or installing them may be subject to criminal prosecution and may also be liable for civil damages resulting from such activities").

139. *Id.* ("A Nintendo emulator is a software program that is designed to allow game play on a platform that it was not created for. A Nintendo emulator allows for Nintendo console based or arcade games to be played on unauthorized hardware. The video games are obtained by downloading illegally copied software, Nintendo ROMs, from Internet distributors. Nintendo ROMs then work with the Nintendo emulator to enable game play on unauthorized hardware such as a personal computer, a modified console, etc. . . . A Nintendo ROM ('Read Only Memory') is the type of chip used in Nintendo's video game cartridge which contains the game software. However, this term is commonly used on many

these emulators.¹⁴⁰ Such use weakens the value of developers' intellectual property. Furthermore, the repercussions of these emulators affect not only developers but the industry as a whole.¹⁴¹

As of February 14, 2008, Nintendo estimated that it had lost nearly \$1 billion in sales because of global piracy.¹⁴² However, this kind of infringement does not just occur in Singapore. In Japan, for example, the copyrights of both old and new video games have been infringed. Classic video games have been sold or used overseas without a license or permission, and some companies have even replaced the logos of the original publishers with their own logo, thereby claiming ownership of another's work.¹⁴³

Additionally, in Great Britain, thousands of gamers used the Internet "to get their hands on a video game banned because of its graphic scenes of torture and murder."¹⁴⁴ The game being leaked, "Manhunt 2," originates from Great Britain and involves a violent killing spree in a mental institution.¹⁴⁵ The British Board of Film Classification (BBFC) banned the game from being sold because of its extremely violent nature.¹⁴⁶ However, once the game was leaked onto the Internet, savvy users with technical knowledge

gaming sites on the Internet and refers to game data that was copied from an authentic Nintendo video game cartridge").

140. *Id.* ("As is the case with any business or industry, when its products become available for free, the revenue stream supporting that industry is threatened. Such emulators have the potential to significantly damage a worldwide entertainment software industry which generates over \$15 billion annually, and tens of thousands of jobs").

141. *Id.* ("Distribution of an emulator developed to play illegally copied Nintendo software hurts Nintendo's goodwill, the millions of dollars invested in research and development and marketing by Nintendo and its licensees. Substantial damages are caused to Nintendo and its licensees. It is irrelevant whether or not someone profits from the distribution of an emulator. The emulator promotes the play of illegal ROMs, NOT authentic games. Thus, not only does it not lead to more sales, *it has the opposite effect and purpose*") (emphasis added).

142. Mark Raby, *Nintendo Goes to US Government to Combat Gaming Piracy*, TG DAILY, Feb. 14, 2008, <http://www.tgdaily.com/content/view/36072/98/>.

143. John Andersen, *Soapbox: Ripping Off Japan - Japan Video Game Copyright Protection Preservation (Or Lack Thereof)*, GAMASUTRA, Oct. 24, 2006, http://www.gamasutra.com/features/20061024/andersen_01.shtml.

144. Jonathan Samuels, *Thousands Download Illegal Ultra-Violet Game*, SKY NEWS, Feb. 27, 2008, <http://news.sky.com/skynews/article/0,,91221-1288697,00.html>.

145. *Id.*

146. *Id.*

could download the game and play it on modified game consoles, thereby circumventing the BBFC's ruling.¹⁴⁷

Another significant problem involves video games with strikingly similar characters and plot lines. There are, however, some sites that walk the line of copyright infringement. One of these sites is GameTap.com,¹⁴⁸ which, while not allowing exact copies of video games to be played by multiple users or shared on the Internet, allows users to play games that have similar characters and similar plots to other creative works of art.¹⁴⁹ Further complicating the issue is that there are multiple layers of infringement: 1) the initial infringement of characters and plot lines stolen from other creative works, and 2) the illegal sharing of these materials on the Internet. Additionally, clever users can figure out a way to reverse engineer these programs and then create an entirely new (third level) of infringement. However, users must be careful regarding copycatting another game, or other copyrighted material, because "[t]he similarity between the two works need not be literal . . . substantial similarity may be found even if none of the words or brush strokes or musical notes are identical."¹⁵⁰ Thus, video game authors (and those who reverse engineer and create "copycat" games) need to be very careful about infringing games that are already in circulation, including games that are no longer readily available.

Lime Wire is one of the last original peer-to-peer file sharing sites still in existence.¹⁵¹ However, the Recording Industry Association of America (RIAA), referred to as enemy number one of peer-to-peer sites, sent a cease and desist order to Lime Wire in September 2005.¹⁵² Then in August 2006,

147. *Id.* Recently, it has been reported that PlayStation Europe leaked the game. Game Politics, *Manhunt 2 Leak Came from PlayStation Europe Employee*, Oct. 22, 2007, <http://gamepolitics.com/2007/10/22/manhunt-2-leak-came-from-playstation-europe-employee>.

148. Users can play free online games. GameTap, www.gametap.com (last visited July 31, 2008). Again, the problem is that the games are often based on copyrighted material. For example, one game users can play is titled "Jaws Unleashed." *Id.* Unless gametap has a license to use Jaws, GameTap is most likely infringing.

149. Alezander Sliwinski, *GameTap Thursday: Touching the Line of Copyright Infringement*, JOYSTIQ, Sept. 27, 2007, <http://www.joystiq.com/2007/09/27/gametap-thursday-touching-the-line-of-copyright-infringement/>.

150. National Information Infrastructure, Law – Copyright Infringement, <http://www.ladas.com/NII/CopyrightInfringement.html> (last visited Aug. 13, 2008).

151. Sarah Simmons, *LimeWire Strikes Back against the RIAA (Cartel?)*, CHILLING EFFECTS CLEARINGHOUSE, Oct. 13, 2006, <http://www.chillingeffects.org/weather.cgi?WeatherID=556>.

152. *Id.*

thirteen record companies, including Arista Records, LLC¹⁵³ filed a lawsuit against Lime Wire alleging that Lime Wire was actively facilitating and encouraging users to engage in copyright infringement.¹⁵⁴ Sound familiar? Are memories of Napster, Grokster, and KaZaa coming to mind? Lime Wire, in its defense proffered a clever, but ineffective, antitrust argument.¹⁵⁵ In addition to the antitrust claim, which is beyond the scope of this paper, Lime Wire claimed that it had a disclaimer stating “[u]sers who install Lime Wire on their computers do so by their own volition and are only able to install the Lime Wire application if they first agree not to use the application to infringe the copyrights of others.”¹⁵⁶ This case is ongoing, and it will be interesting to see how the court will treat the disclaimer and how it will affect other file sharing sites that have disclaimers that appear in “check the box to agree format” when users download the software. Further support of Lime Wire’s potential liability for vicarious and/or contributory infringement is that Lime Wire “[u]sers can now search in any language, and LimeWire ensures that a user will be connected to other users with their own language to *aide international users to receive search results in their native language and to find content from sources that are close to home.*”¹⁵⁷

X. ILLEGAL VIDEO GAME DOWNLOADS – IT’S NOT JUST ABOUT THE GAME, BUT THE MUSIC TOO

The heavy metal band Metallica, which played an instrumental role in *Napster*, is yet again stepping up to the plate and accusing that its song “One” is being illegally used in the popular game *Guitar Hero III*.¹⁵⁸ Addi-

153. *Arista Records LLC v. Lime Group LLC*, 532 F. Supp. 2d 556 (S.D.N.Y. 2007). This case is commonly referred to as the “Arista v. LimeWire” case. The record companies are named parties in alphabetical order in the lawsuit.

154. *Id.* at 562.

155. *Id.*

156. The district court specifically rejected antitrust claims proffered by Lime Wire in its defense to alleged copyright infringement. *Id.* at 563 n.23.

157. Lime Wire, Features, <http://www.limewire.com/features/> (last visited July 31, 2008) (emphasis added).

158. Metallica has filed a preemptive strike lawsuit against three gaming companies alleging the illegal distribution of Metallica songs in the upcoming and highly anticipated games “Guitar Hero III” and “Rock Band,” both of which are due out in late 2007. Daily Gaming News, *Metallica Sues Red Octane/Activision & Harmonix for Copyright Infringement*, Aug. 14, 2007, <http://www.dailygaming.net/index.php?name=News&file=article&sid=230>. Apparently, Metallica is trying to prevent what happened to the band in the late 1990s when its music was being illegally shared over Napster, allegedly contributing to Metallica’s declining popularity and record sales. Critics say that Metallica’s actions are one last “desperate grab for attention from a band that has lost all cultural significance outside of reruns of ‘I Love the 90s’ on VH1.” *Id.* See also Cer-

tionally, Motley Crue has recently become “the first band to release a new single exclusively through the popular video game ‘Rock Band.’”¹⁵⁹ Thus, there are several layers of infringement when dealing with video games. When the video game creator uses music without paying a license fee, the creator infringes on the artist’s copyright-protected song(s). Furthermore, if the video game with the music (whether the music was licensed or not) is illegally downloaded, then the music incorporated into that video game is also illegally downloaded. Thus, it is plausible that a video game player could be liable for multiple counts of copyright infringement just for a single download. Further, some online superhero video games allow users to create characters, many of which infringe on established copyrighted characters.¹⁶⁰

XI. SHIFTING OF BURDEN

Copyright laws were enacted to protect the creative work of individuals who invested time, talent, and money into creating a product for others to enjoy. When an author registers her work for copyright protection and is

rati, *supra* note 8, at 293 (providing an excellent general discussion of the history of music that is used in video games).

159. Posting of Eliot van Buskirk to Wired Blog Network Listening Post, <http://blog.wired.com/music/2008/04/motley-cre-to-re.html> (Apr. 15, 2008, 15:15 EST).

160. Britton Payne, *Super-Grokster: Untangling Secondary Liability, Comic Book Heroes and the DMCA, and a Filtering Solution for Infringing Digital Creations*, 16 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 939, 941 (2006) (discussing how some video games allow Internet users to create their own characters based on Marvel comic book characters). See also Stephan Kinsella, *Copyright and Video Games*, LUDWIG VON MISES INST., Feb. 25, 2005, <http://blog.mises.org/archives/003228.asp>. For a discussion of the evolution of file swapping see John Borland, *The Evolution of File Swapping*, CNET NEWS.COM, June 27, 2005, http://news.cnet.com/2102-1030_3-5752075.html (discussing the 2002 release of BitTorrent and the rise of eDonkey and eMule to surpass Kazaa as the top file-swapping networks). An anonymous source recently told me that eMule is the number one file-swapping site among his circle of mySpace friends, personal friends, and co-workers. This individual stated that he had over 6,000 files illegally downloaded off eMule and/or eDonkey. Users swap and discuss these files on their social networking pages. It has been reported on multiple sites that an easy estimate of the number of users on eDonkey was approximately 2-3 million before the site was taken down in 2006. My confidential source stated that the fall of eDonkey was not a big deal because eMule simply took its place and that even if eMule gets taken down, there will shortly be another service to take its place. Further, the source stated that torrents are “where it’s at” and that eMule is the “choice source” for downloads of just about anything. For a discussion concerning eMule’s replacement of eDonkey, see Rage3d.com, *Edonkey2000 Network Has Been Shut Down*, <http://www.rage3d.com/board/archive/index.php?t-33867271.html> (last visited July 31, 2008).

granted a registered copyright, the Copyright Act grants and the copyright holder expects certain rights for the life of the copyright.

The Copyright Act grants five rights to a copyright owner:

- (1) to reproduce the copyrighted work in copies or phonorecords;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly;
- (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and
- (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.¹⁶¹

However, as this paper discusses, these rights have been put in jeopardy because copyright holders and those of us who have not been players in the game have been asleep for a very long time. Later, this paper discusses various options for finding a compromise between copyright holders and entertainment lovers. One possible, yet highly criticized, solution is the pending bill, H.R. 1201, known as the Freedom and Innovation Revitalizing U.S. Entrepreneurship Act.¹⁶² This bipartisan bill was originally introduced by Rick Boucher (Democrat, Virginia) and co-sponsored by Charlie Watt (Republican, California) and Zoe Lofgren (Democrat, California).¹⁶³ According to Congressman Boucher, this is a consumer-oriented bill that would allow a user to “circumvent an access control on an electronic book he purchased for the purpose of reading it on a different reader.”¹⁶⁴ According to bloggers, this bill could be huge for game lovers because a video game user could use his or her mod chip to circumvent security and play pirated games.¹⁶⁵

However, there is a lot of controversy concerning this proposed legislation. Some have accused the bill of being an attempt to “unravel the Digital Millennium Copyright Act (DMCA), the Supreme Court’s unanimous

161. 17 U.S.C. § 106 (2008).

162. GamePolitics, *Breaking: ECA Takes a Stand on Fair Use, Disses DMCA*, Oct. 26, 2007, <http://gamepolitics.com/2007/10/26/breaking-eca-takes-stand-fair-use-disses-dmca>.

163. *Id.*

164. *Id.*

165. *Id.*

Groskter decision and recent U.S. trade treaties in single legislation.”¹⁶⁶ The main criticism of the Fair Use Act is that this legislation provides a “get out of jail free card” to companies that contribute to piracy, actively induce others to pirate, or benefit financially from piracy, while leaving consumers to suffer fines should their computer be found to contain illegally obtained copies of video games, music, movies, and other forms of entertainment.¹⁶⁷ A full text of the proposed bill is available on the Internet so that readers can make their own conclusions as to the fairness of the proposed legislation.¹⁶⁸

XII. ETHICAL CONSIDERATIONS AND POTENTIAL LIABILITY FOR UNIVERSITIES AND COLLEGES

How many of you are a frustrated parent of two children who gets incredibly upset when her compact discs, movies, video games, etc. (whether store bought or burned off her iTunes or another legal site) are being used as hockey pucks in the Stanley Cup playoff across your hard wood floors? Well, if you just got a visual in your head of a similar situation in your own household, know that I am on your side. We spend our hard-earned money on music, film, video games, and other forms of media entertainment for ourselves, our families, and our friends. We buy it once, and we never imagine we will have to purchase it again. Then later, when our purchased products are destroyed (or in some cases stolen), some of us might feel that we should not have to buy another copy of something that we already owned that was working fine yesterday. The problem is that with the way the laws are set up now, that is exactly what we have to do. It is important for parents and educators to explain to our children and students that it is perfectly legal (in fact, encouraged) to make one archival copy of the music, movies, etc. that you own. If you are like me and have children that treat DVDs and CDs as hockey pucks, you can appreciate the logic of this rule.¹⁶⁹

166. Erin Humiston, *The FAIR USE Act: Anything But Fair to Consumers, Innovators, Trade - IPI*, REUTERS, Mar. 10, 2008, <http://www.reuters.com/article/pressRelease/idUS143902+10-Mar-2008+PRN20080310>.

167. *Id.* For more information, readers of this paper can contact Erin Humiston at the Institute for Policy Innovation, a non-profit organization, at (972) 874-5139 or erin@ipi.org.

168. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h1201ih.txt.pdf.

169. Section 117 of the U.S. Copyright Act authorizes “the making of another copy . . . for archival purposes only.” 17 U.S.C. § 117 (1980). Section 117 also advises that “all archival copies” should be destroyed if possession of the original ceases to be rightful. *Id.* This language arguably contemplates more than a single backup copy; nevertheless, the backup function is adequately performed by one backup at a time. There is a controversy as to whether there is a right to make a copy of the archival copy if something happens to the working copy in order to have a backup to the archival copy, or whether the first (and only)

Many people do not intentionally violate copyright law when they download video games. Many times these individuals are fooled by language that states "This Product is 100% Legal." The problem is that while downloading the file-sharing software is in fact legal, the downloading and uploading of copyrighted material is illegal. Many youths (and adults) forget that it is just as illegal to allow people to upload from their computer as it is to download from another file sharer's computer/server. We must address rampant copyright infringement over the Internet, and we need to better educate our children, students, and ourselves about what exactly file sharing means and when it is legal versus when it is not.¹⁷⁰

A lot of confusion exists among youth, college students, and adults concerning what can and cannot be copied, particularly when it pertains to vintage video games that children like me played in the 1980s on stand-alone arcade systems in the church's youth building or at the local arcade at the mall. Unfortunately for us, our only hope of obtaining that vintage version of Pong or Donkey Kong or Pac Man is searching Ebay, scouring flea markets, or finding a random game room that still has vintage stand alone game consoles.¹⁷¹ Under U.S. copyright laws, "copyrights owned by corporations are valid for 95 years from the date of first publication, [and b]ecause video and computer games have been around a little more than three decades, the copyrights of all video and computer programs will not expire for many decades to come."¹⁷²

backup copy must be used without additional backup until another original can be purchased.

170. Garon, *supra* note 3, at 1279-80 (citing an incident in an academic classroom environment where this very question was raised and discussed: "How many of you have heard of the Napster System?" All the hands shot up. "And how many of you have used the Napster System?" All the hands remained up. "How many of you engage in rampant shoplifting at the store?" All the hands crept down. The speaker pointed out to the [law] students their moral obtuseness in failing to appreciate that the one activity was equivalent to the other. Further, I have had, while writing this paper, personal experiences with this topic with my own son, including multiple conversations about file sharing of video games and other media and when it is legal. Ironically, it was not until researching and writing this paper that I felt the need to discuss such matters with my son. Suffice it to say that when the dialogue was opened, the answers were shocking and very informative.
171. Infogrames Entertainment SA (IESA) now owns Atari's intellectual property assets in these games.
172. The Entertainment Software Association, Anti-Piracy FAQs, http://www.theesa.com/ip/anti_piracy_faq.php (last visited Aug. 13, 2008). I own an original Atari system that was a law school graduation present from my husband. He spent a significant amount of time trying to locate it on the Internet, and no, none of the games are pirated copies.

Confusion concerning the laws on copying is not a problem just the United States, either. Recently, a survey conducted by “the European Commission has found that children across Europe have a good knowledge of illegal downloading, but don’t view the legal implications as a major risk.”¹⁷³ Thirty-seven European countries, as well as Norway and Iceland, conducted this survey, which concentrated on the Internet activities of nine to fourteen year olds.¹⁷⁴ The survey found that most online activities included playing games.¹⁷⁵

Perhaps the most disturbing thing about the results of the European Commission’s survey is the answers given by children who were questioned about the illegal downloading of files. The most popular responses given by children between the ages of nine to fourteen were:

- (1) Illegal downloads were done by their parents giving some form of validation to doing it themselves
- (2) It is only done for personal and private use
- (3) Assumption that the websites offering the downloads gives money to the artists
- (4) The loss of revenue to artists was questionable
- (5) DVDs and CDs are too expensive[.]¹⁷⁶

**XIII. AND SO NOW MAYBE WHAT WE NEED IS A LOT OF EDUCATION
THROWN IN WITH A PINCH OF COMEUPPANCE
FOR GOOD MEASURE**

Scholars have suggested that:

[P]ublic education and the copyright industries must join together to provide a pervasive program of education. This educational campaign should start with a positive tone, not just because it may be a stronger marketing approach and pedagogical message, but because the campaign should center first on the value of copyright to each citizen as author, then to the public generally and society as a whole. A point raised in the first meeting of the [National Information Infrastructure Workgroup] was that copyright education should not be a series of ‘thou shall notes.’ Instead, education should carry a ‘just say yes’ message—that works may be accessed and used, and that seeking permission is not an insurmountable barrier.¹⁷⁷

173. Matthew, *Illegal Downloads Not a Worry for Euro Kids*, GEEK.COM, Aug. 14, 2007, <http://www.geek.com/illegal-downloads-not-a-worry-for-euro-kids>.

174. *Id.*

175. *Id.*

176. *Id.*

177. Garon, *supra* note 3, at 1346-47 (citations omitted) (internal quotation marks omitted).

If every grade or high school student realized that they themselves are a copyrighted author – that their book report, their essays for class projects, their drawings, and creative expressions are their *own* unique creation, then these students might think twice before knowingly illegally downloading music, video games, films, and other files off the Internet. Perhaps they could grasp the importance of protecting the rights of the individual(s) who created those works. Perhaps the recent writers' strike from November 5, 2007 through February 12, 2008 has brought that message home – not just to children but to adults as well. Television was just not as fun as it had been.

Recently, the Recording Industry Association of America (RIAA) has been sending demand letters to students whom the RIAA is accusing of illegally downloading songs.¹⁷⁸ The demand letters usually require something along the lines of “[p]lay the industry group about \$3,500 – or defend yourself in court and spend far more on a lawyer.”¹⁷⁹ A student at Morrisville State College in New York responded, “It’s a strange kind of feeling . . . I know that downloading is wrong, and yes, I do believe that people should be paid for their intellectual property. But this system could be a million light-years better than what it is right now.”¹⁸⁰ “Paul Rapp, a Massachusetts lawyer, said that most families pay the pre-settlement [\$3,500 magic number] because it’s perfectly positioned to inflict pain, yet it’s a bargain compared with a trial.”¹⁸¹ “Since 2003, [the RIAA] has sent letters to about 26,000 individuals, with the vast majority paying \$3,000 to \$4,000 to ‘presettle.’”¹⁸² This number is equivalent to approximately 400 college students being targeted each month.¹⁸³

The Entertainment Software Association (ESA) provides numerous educational materials that assist parents, caregivers, and educators in explaining copyright guidelines to even the youngest of children. These educational materials are a good way to prevent what could take some parents by storm as their eager freshman student goes off to college.¹⁸⁴

178. Hart Seely, *Downloading War Raging: College Students, Recording Industry Fight over Songs*, HOUSTON CHRON., Jan. 7, 2008, at D7.

179. *Id.*; see, e.g., Cox Communications, *IDSA Takedown to Gnutella User*, CHILLING EFFECTS CLEARINGHOUSE, Nov. 11, 2002, <http://www.chillingeffects.org/piracy/notice.cgi?NoticeID=458> (illustrating a typical mass produced takedown notice).

180. Seely, *supra* note 178.

181. *Id.*

182. Gigi Sohn, *MPAA Data About Illegal Movie Downloading from University Campuses Inaccurate*, WEB TV WIRE, Jan. 26, 2008, <http://www.webtvwire.com/mpaa-data-about-illegal-movie-downloading-from-university-campuses-inaccurate>.

183. *Id.*

184. See The Entertainment Software Association, <http://www.theesa.com> (last visited July, 31, 2008) (providing contact information to the Entertainment

The Chronicle of Higher Education recently had a symposium discussing this very issue:

[R]esearch into student behavior has suggested that students don't think they are going to get caught for illegal file sharing. If they do get caught, they will stop for a few days, be good, but then they will go back to it. It's like when you get a speeding ticket – you probably obey the speed limits for a few days, but then, eventually, your foot gets a bit heavier . . . One of the things universities do well is to educate. But a lot of what passes for education when it comes to file sharing and related copyright issues doesn't resemble the kind of education at which universities excel. It is a lot of lecturing, a lot of finger wagging, a lot of explaining what the rules are and what will happen if [a student] transgress[es] them.¹⁸⁵

I have worked as an adjunct professor for almost four years. I have taught thousands of great students, and this paper is not meant to point the finger at today's youth, especially those on college and university campuses, as being the sole or even majority of the cause of illegal video game piracy and sharing. I know firsthand that today's students represent innovation, desire, drive, and aptitude at skills with which the author's generation still struggles. However, the fact remains that illegal video game swapping is occurring on our college and university campuses. Yet it is unclear whether illegal swapping is occurring at a rampant rate, as some have suggested. One indication that it is not as pervasive as believed is the recent admission by the Motion Picture Association of America that only fifteen percent of its losses from illegal downloading and sharing occur on college and university campuses.¹⁸⁶

Software Association and how to acquire educational materials for children concerning intellectual property rights).

185. Cheryl A. Elzy et al., *How Higher Education and Industry Can Move Forward on File Sharing*, THE CHRON. OF HIGHER EDUC., Apr. 4, 2008, at 10 [hereinafter THE CHRON. OF HIGHER EDUC.].

186. Sohn, *supra* note 182. It is alleged that the fifteen percent statement made in a Senate Judiciary Committee hearing nineteen months prior to January 2008 was made with no substantial data to support the claim. *Id.* Initially, the MPAA claimed that forty-four percent of the motion picture industry's losses arose from illegal downloading and sharing by college and university students who used their campus Internet systems to do so. *Id.* The puzzling, or perhaps most troubling thing, about the discrepancy between the prior claim and the current claim is the amount of money that the MPAA spent lobbying for a change in legislation to prevent future losses. According to Sohn, the MPAA spent approximately \$3 million for a consulting firm (LEK) to support its claim that it had suffered industry losses of approximately \$6.1 billion from both hard goods piracy (copying of DVDs) and illegal downloading. *Id.*

This is the typical mentality of college students: "It's not like I downloaded thousands of materials. So what does it matter? Companies make millions. I have mounting student debt. Plus, the Internet is filled with sites that basically are a how-to primer on how to file share and illegally download copyrighted materials."¹⁸⁷ I don't know about you, but I had only a few things on my mind when I started college, largely relating to book-stores, boys, and football.

According to scholars:

[S]tudents have now entered a realm where they can get [copyright protected material] quickly and easily through university networks. If nobody teaches them that it is wrong to obtain those products illegally, then they are going to continue to do more of it. Most parents of those students don't know how to download or even what it means.¹⁸⁸

According to the Recording Industry Association of America (RIAA), nearly half of the college students in the country regularly download or share music illegally. Because of this, the RIAA is targeting college students specifically when filing lawsuits against users who download illegally . . . The RIAA monitors Internet networks, specifically those of colleges, for illegal downloading and uploading. The association then sends the Internet Protocol (IP) address of the student to the university, alerting them of the illegal downloading.¹⁸⁹

A recent story was posted on the Internet concerning an Indiana State University sophomore who had allegedly downloaded approximately twenty-five to thirty songs using the peer-to-peer system, Lime Wire, during a two month period.¹⁹⁰ Universities, such as Indiana State, used to have a three violation rule before taking action against an enrolled student using the school's Internet system. However, schools today, such as Indiana State, are using an even stricter two violation system.¹⁹¹ For example, in 2002, Stan-

187. Sean Hollister, *Education 2.0: The College Student's Guide to File Sharing*, WIRED NEWS, Aug. 7, 2007, <http://www.wired.com/software/coolapps/news/2007/08/filesharing?currentPage=all>.

188. THE CHRON. OF HIGHER EDUC. *supra* note 185 (suggesting that educators need to "hit the kids where they are" and that a "university is an important place to do that").

189. Robin Wildman, *A Risky Game: With the Recording Industry Cracking Down Harder Than Ever, Students Are Becoming the Biggest Targets*, INDIANA STATESMAN, Jan. 25, 2008, <http://media.www.indianastatesman.com/media/storage/paper929/news/2008/01/25/Campus/A.Risky.Game-3168489.shtml>.

190. *Id.*

191. *Id.* After the first offense, the university shuts off the student's access to the school's network. Once the student can show that he/she has removed all ille-

ford University took down its Gnutella-based network that was set up for use by residents in the school's dormitories because the Gnutella-based network had become popular for the file-swapping of pirated movies by college students.¹⁹²

Perhaps stricter standards are not just about the potential liability under the DMCA for a university's network, but also about the broader role that education plays in forming and shaping the minds of today's students. The University of Texas and other universities have websites dedicated to educating college students about permissible copying of software, determining copyright status, and explaining copyright owners' rights.¹⁹³ Students who argue that they are not big downloaders seem to think that it is okay as long as they are not downloading thousands or even hundreds of songs. Of course, the financial pressures make it very tempting. Higher college tuition expenses and the ever-rising cost of textbooks, coupled with the entertainment industry's insistence on charging high prices for forms of entertainment that are increasingly cheaper to produce, increase the temptation of piracy.¹⁹⁴ It is no wonder that students feel immense pressure to say that enough is enough because they are fed up with the whole entertainment industry.

A mentality that it is *technically* illegal to download has become the norm among not only students but also the public at large, and a compromise must be made to resolve this issue. This paper is not meant to target college students or today's youth because at some point each of us has probably violated a copyright in some form. Sometimes, as teachers, we find an article that is of pressing importance to our students, and so for the sake of education, we copy it and distribute it. The results of a "recent survey of music consumers found that fifty percent of twelve to forty-four-year-olds did not believe that there was anything morally wrong about downloading free music from the Internet."¹⁹⁵ Further, even our judiciary is not immune to copyright sainthood – some scholars question whether Supreme Court Jus-

gally downloaded files, then the school will restore access to the school's network to the student. After the second offense, a student could then be subject to the usual federal fines under the guidelines in the copyright statute. *Id.*

192. Pamela McClintock, *Inside Move: Stanford U. Unplugs Gnutella Server*, VARIETY, Jan. 16, 2002, <http://www.variety.com/article/VR1117858678.html?categoryid=1009&cs=1>.

193. See, e.g., University of Texas System's Permissible Copying of Software Webpage, <http://www.utsystem.edu/ogc/intellectualproperty/mono2.htm> (last visited Aug. 1, 2008).

194. A recent trip to an entertainment store revealed that a basic compact disc costs anywhere between \$12.00 to \$25.00 depending on the artist, the artwork, and whether it is a double disc or single disc. An average DVD costs around \$20.00. Video games are priced anywhere between \$12.00 for a used game up to about the same price as a CD. The average price for a Wii game will set you back about \$50.00.

195. Bergen, *supra* note 17, at 183 (citation omitted).

tices have been guilty of copyright infringement for copying materials for their personal use or to share with fellow members on the bench.¹⁹⁶ What is most shocking is that this mentality is generationally blind, race blind, and gender blind: “[F]ifty-three percent of the general Internet population does not believe that downloading copyrighted music is stealing.”¹⁹⁷

XIV. SO, YOU THINK BECAUSE YOU ARE IN ACADEMIA THAT THIS DOES NOT APPLY TO YOU? THINK AGAIN.

One of the perks of being a law student and an adjunct faculty member is the high speed Internet connection offered on university and college campuses. I have surely benefited from being able to check my email as both a student and law professor on a secured website where I have little or no fear of viruses or offensive material. However, many individuals use the high speed bandwidth that their tuition pays for, or that is a “perk” of being a faculty member, to download illegally copyrighted material, including video games.¹⁹⁸ As a practicing attorney, more than several employees at such institutions as FedEx Kinko’s, Staples, and various national chain bookstores have told me that it is lawyers and other professionals (not students) who are most often the culprits of copyright infringement. This is disturbing because if these professionals are infringing via paper, could they be infringing online, too? The problems concerning copyright infringement on the Internet access systems of colleges and universities are discussed below.

First of all, copyright infringement impinges on the campus’s bandwidth. The more traffic running through a campus’s bandwidth, the slower the online connectivity speed is going to be for all persons involved, whether they are students, faculty, or other school personnel. When a significant number of persons affiliated with the campus use the campus bandwidth to download copyrighted material, like video games, which take up a significantly greater amount of space than a song, they are tying up bandwidth that could be used for other purposes. Thus, the whole system is slowed down for both students and faculty members. Have you ever noticed that at certain

196. Nicole B. Casarez, *Deconstructing the Fair Use Doctrine: The Cost of Personal and Workplace Copying After American Geophysical Union v. Texaco, Inc.*, 6 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 641, 642-43 (1996) (referencing that in 1974, Chief Justice Warren Burger admitted during oral arguments in a pending case that he had occasionally photocopied copyrighted material for his own use or to share with his colleagues on the bench).

197. Bergen, *supra* note 17, at 183 (citation omitted).

198. See Katherine S. Mangan, *Colleges Could Face Lawsuits Over Illegal File-Sharing*, THE CHRON. OF HIGHER EDUC., Oct. 14, 2002, <http://chronicle.com/free/2002/10/2002101401t.htm>. Because of the obvious academic nature of this publication, this article targets infringement by students. However, based on my personal experiences, I believe that the problem is not limited to students, but also applies to faculty and other university and college personnel.

times of the day when you are using your school's broadband, connectivity is significantly slower?

Further, universities and colleges are designed to form students' minds, not only academically, but also morally and ethically.¹⁹⁹ In the case of church-related private schools, there is perhaps an even stronger sense of responsibility for professors to instill values, ethics, and honor. On October 3, 2002, various entertainment-industry organizations sent an open letter to a college/university president.²⁰⁰ The letter provided recommendations for monitoring bandwidth and copyright infringement by students.²⁰¹ The recommendations included informing students of moral and legal issues with regards to having respect for copyrighted material, specifying what is and is not acceptable on the campus's Internet network, implementing a program for monitoring compliance with campus standards concerning Internet activity, and effectuating remedies for violations of copyright law.²⁰²

Despite the millions of dollars spent by the media industry on litigation and some apparent victories like the Napster litigation, downloaders of illegal media files have not been deterred, and appear to be thriving. In fact, one could argue that the Napster litigation and the publicity surrounding it actually made Napster a household word and engendered curiosity in the uninitiated.²⁰³

Further, "[t]he recording industry's public education campaign began by placing advertisements in newspapers, launching Web sites, and distributing literature to college campuses."²⁰⁴

XV. ETHICS FOR CHILDREN AND PARENTS

A good resource for parents, educators, and children concerning copyright protection and infringement is Play it Cyber Safe, which is part of the Business Software Alliance (BSA).²⁰⁵ This website has teamed up with Weekly Reader and is completely free.²⁰⁶ Play it Cyber Safe provides a free

199. As an adjunct professor, I take this responsibility very seriously, both in and outside the classroom.

200. Mangan, *supra* note 198.

201. *Id.*

202. *Id.*

203. Bergen, *supra* note 17, at 183 (citation omitted). I never would have considered exploring Napster until the heavy metal band Metallica started making a ruckus over the system.

204. Jeremy Paul Sirota, *Analog to Digital: Harnessing Peer Computing*, 55 HASTINGS L.J. 759, 767 (2004) (citation omitted).

205. Play It Cyber Safe, <http://www.playitcybersafe.com> (last visited Aug. 1, 2008).

206. *Id.* See Play It Cyber Safe, Curriculum, <http://www.playitcybersafe.com/curriculum/index.cfm> (last visited Aug. 19, 2008).

comic book to educate children about copyright law, where the protagonist is named "Garret the Ferret."²⁰⁷ The Chronicle for Higher Education at Illinois State conducted several surveys, discovering that "many students start downloading in middle school, some as early as third grade."²⁰⁸ For older children who may not find Garret the Ferret as adorable as younger kids, Chilling Effects provides basic information on piracy and copyright infringement.²⁰⁹ Additionally, the Electronic Software Association (ESA) provides other information, including answers to frequently asked questions regarding copyright.²¹⁰

**XVI. COPYRIGHT INFRINGEMENT OF VIDEO GAMES IS INEVITABLE:
HOW SOFTWARE COMPANIES AND TODAY'S CONSUMERS CAN
PEACEFULLY CO-EXIST AND POSSIBLE OPTIONS**

Despite the media publicity of several lawsuits and the organized efforts to inform the public about the legal issues associated with file-sharing sites, traffic on such sites continues to grow at an exponential rate. Because punishing everyone who engages in illegal file sharing is impossible, other options need to be evaluated to reach some sort of compromise. As United States Representative Rick Boucher has noted, "[h]istorically, the nation's copyright laws have reflected a carefully calibrated balance between the rights of copyright owners and the rights of the users of copyrighted material."²¹¹ Alternatives to the current system make sense because, as we have seen in this paper, whenever one site gets taken down, another always seems ready to pop up in its place. Hackers are always going to be one step ahead, but workable options exist that will allow us to continue to enjoy our music, games, movies and more!

One particularly draconian approach is to permit preregistration²¹² rights for a copyright holder before a work is entirely complete. Under the Artists' Rights and Theft Prevention Act of 2005, an author of material such as a video game can sue for copyright infringement of a work that is *still in progress* and *before registration*.²¹³ Traditionally, a copyright holder has been

207. Play It Cyber Safe, Copyright Crusader to the Rescue, <http://www.playitcybersafe.com/pdfs/TG-CopyrightCrusader-2005.pdf> (last visited Aug. 19, 2008).

208. THE CHRON. OF HIGHER EDUCATION, *supra* note 185.

209. Chilling Effects Clearinghouse: Piracy or Copyright Infringement, <http://www.chillingeffects.org/piracy> (last visited Aug. 1, 2008).

210. The Entertainment Software Association: Anti-Piracy FAQs, http://www.thesa.com/policy/antipiracy_faq.asp (last visited Aug. 1, 2008).

211. GamePolitics.com, *Breaking: ECA Takes a Stand on Fair Use, Disses DMCA*, GAMEPOLITICS.COM, Oct. 26, 2007, <http://www.gamepolitics.com/2007/10/26/breaking-eca-takes-stand-fair-use-disses-dmca> (quoting Rep. Boucher).

212. Preregistration is indicative of intent to register a work for copyright protection.

213. 17 U.S.C. § 504 (2008).

prohibited from filing suit for infringement until the actual infringement of a finished product has taken place. In other words, the author needed to complete her work before she could register the copyright, thereby satisfying the threshold requirement for a copyright infringement lawsuit. Under the new scheme, authors are allowed to test their products without worrying that someone else will copy it and profit from the work-in-progress.²¹⁴

An author must meet three requirements for her work to be eligible for preregistration. First, the work must be one of the specific types of permitted materials.²¹⁵ Video games are included in this group. Second, the author must intend to distribute the work to the public.²¹⁶ Third, the work must be "unpublished," meaning that the work has "not been made available to the public, either for a charge or for free."²¹⁷

Given the approximate \$2.4 billion lost to global piracy in 2005 alone, this dramatic change in the law seems justified.²¹⁸ Preregistration may prove to be a valuable tool for protecting intellectual property, as monetary damages for copyright infringement can range anywhere from hundreds to thousands of dollars, plus attorneys fees and court costs.²¹⁹ However, authors should not use preregistration as indefinite ongoing protection against future infringement. An author must generally register her copyright application within three months after filing for preregistration status.²²⁰ Nonetheless, preregistration provides remedies similar to those afforded under full copyright protection, including injunctive relief, monetary damages, and seizure of the infringing material.²²¹ Video game designers should be aware that although they may obtain a court order that "seizes" the infringing material, once the genie is out of the bottle and in cyberspace, it will be virtually impossible to stop copycats and look-a-likes.

Another possible solution is "spyware" to detect infringement by users of company and college web networks. The Warden technology discussed earlier in this article has been characterized as "spyware" by critics. So long as appropriate regulations are in place, such spyware could be used for legitimate and protective purposes to prevent illegal downloading and to search

214. COOPERMAN & KRASHIN, *supra* note 6. This is similar to patent law, where in certain circumstances an inventor is allowed time to test and perfect his invention before applying for a final patent.

215. *Id.* Copyrights may be preregistered for computer programs, video games, advertising, marketing photographs, movies, sound recordings, musical compositions, and certain literary works.

216. *Id.*

217. *Id.*

218. *Id.*

219. *Id.*

220. *Id.*

221. COOPERMAN & KRASHIN, *supra* note 6.

for illegal activity. Obviously, this technology brings into play certain right-to-privacy and Fourth Amendment issues.²²² As discussed previously, to police millions of individuals' laptop computers would cost a fortune, and the results could be catastrophic for a company's bottom line.

A third option is the Apple model. Apple has a way of creating needs that the public never realized it had. Surprisingly, Apple does not make much money through iTunes on downloads of songs, movies, and television shows. However, Apple has made a fortune on sales of its iPods, which are the dominant mp3 player on the market, and more recently, the iPhone. These technologies have in turn supported sales of Apple computers, which automatically synchronize with Apple's music technologies. This model has served Apple and its shareholders very well. Additionally, Yahoo music, Amazon music, and the new version of Napster also have "pay-per" systems to download music and other forms of electronic media.

A fourth option would be a "try before you buy" option. Wouldn't it be nice if you could rent online video games before deciding whether to buy them, just as we're able to rent movies and conventional video games? Of course, with the option of renting comes the obvious problem of a clever hacker using that free trial period not to enjoy the game, but rather to reverse engineer it and circumvent security. However, perhaps the renting process could create some sense of goodwill between game lovers and companies.

A fifth option would be for a video game's creator simply to make the game available for free on the web. Of course, if you make the game available for free, you have to figure out a non-traditional way to make money from the product. There are several avenues by which you could generate revenue. For example, you could host tournaments where participants pay entry fees. Also, you could earn advertising revenue through links on your game site, like the links on social networking sites. There are also ways to market towards the unique culture of game lovers. For example, you could create a dating website for game lovers or some other type of social-networking site designed for lovers of a particular game. With those social-networking sites, you could also derive advertising revenue through sponsored links.

This "put it out there for free or whatever you want to pay for it" model has certainly fared well for bands such as Radiohead and Phish. Radiohead, a popular alternative rock band among college students, has chosen to sell its albums directly to the public through its own website.²²³ Music executives are understandably concerned about this because it takes out the middle man

222. Any of us who have ever had that annoying box "pop-up" on our screen saying that our computer is being spied on or watched, and then suddenly another couple of boxes "pop-up" saying that we should download certain software, understands that despite firewalls such as McAfee and Norton, anytime we use the Internet, our computer is pretty much fair game.

223. Posting of Eliot Van Buskirk to Wired Blog Network Listening Post, <http://blog.wired.com/music/2007/09/radiohead-blows.html> (Sept. 17, 2007 14:12 EST).

and allows the artist to earn money without the burden of advertising and promotion. Additionally, the band gets all of the proceeds from touring.²²⁴ Phish, another very popular band with a huge cult following, has also allowed its music, show performances, and other media to be downloaded for free on its website for years.²²⁵ This model seems to work very well for bands with very loyal followers who are concerned more about live performances rather than studio productions.

XVII. LIABILITY GOES BOTH WAYS

It is important to remember that even if you do not actually download anything, you can still be liable for whatever copyright-protected material you put out there for others to copy and download. For example, you are not liable for downloading Gnutella-based software or other file-sharing software, but you are liable when you use Gnutella or other file-sharing software to download copyrighted materials without payment of a license fee. You need to be certain that, when you download Gnutella-based software like Lime Wire, you do not allow your copyright-protected material to be made accessible to others. Most of these websites have “check the box” formats where you can choose what you want to make available to others. If you fail to ensure the copyright protected material is not available to the outside world, then you can be subject to both vicarious and copyright infringement liability.²²⁶

XVIII. SOCIAL AND ECONOMIC EFFECTS OF ILLEGAL FILE SHARING

Beyond undermining copyright protection, which will eventually eliminate traditional notions of property rights in creative arts, illegal file sharing has tremendous social and economic costs.²²⁷ The economic consequences include, but are not limited to:

224. This type of marketing reminds the author of the many college bands she knew in college that would sell their compact mini disks out of the back of vans. Several Austin, Texas bands still use this marketing format and are doing very well for themselves.

225. LivePhish.com, <http://www.livephish.com/> (last visited July 30, 2008).

226. For excellent practical discussions about file-sharing and vicarious and contributory infringement, *see* Chilling Effects Clearinghouse, <http://www.chillingeffects.org> (last visited Aug. 13, 2008). Chilling Effects Clearinghouse is a “joint project of the Electronic Frontier Foundation and Harvard, Stanford, Berkeley, University of San Francisco, University of Maine, George Washington School of Law, and Santa Clara University School of Law clinics.”

227. One could argue that it makes no sense to copyright creative works of art if the protection of those works will be blatantly and flagrantly disregarded. One could also argue that authors should instead use a service such as Creative Commons, which offers licenses that are flexible, allowing the copyright holder the ability to choose what limitations she wants in place with respect to specific

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- (1) an increase in the number of copyright infringement cases in an already overburdened court system;
 - (2) an increase in the need for prosecutors who are intellectual property experts to prosecute these infringement cases;
 - (3) an increase in the need for more intellectual property attorneys, particularly in-house counsel who have the best access to the research and development processes of the company's creative works and licensing arrangements, including works for hire;
 - (4) an increase in the need for companies to spend more and more money on research and development for better encryption software;
 - (5) the personal, emotional, and financial burden on individuals whose works are illegally downloaded;²²⁸
 - (6) a need for a separate department in a company to do nothing but police copyrighted works owned or represented by the company;²²⁹ and
 - (7) a burden on individual copyright holders who are not represented by an agent or corporate representative and would have to expend significant time and economic resources to conduct their own searches to police whether their creative works are being illegally swapped, traded, or downloaded. This stifles creativity because time will be expended to police infringement that could have been used to create new and useful works for society.

Given the proliferation of torrents in our online game-sharing society, it is very likely that in the not-so-distant future, there will literally be torrents that are just one bit of information. Thus, how in the world will companies or the government be able to police thousands of these "one bit torrents?"

copywritten works. For more information on Creative Commons, *see* Feed for All: RSS Feed Creation Tool, What is Creative Commons?, <http://feedforall.com/creative-commons.htm> (last visited Aug. 19, 2008).

228. Not only do these creative artists have to ask themselves whether they can actually afford an attorney to prosecute on their behalf, but they also will have to deal with the emotional and psychological toll of feeling violated, just as if a thief had broken into their home or store.
229. While this new company department would create new jobs, it would still be a financial burden on the company. Related costs include an increased potential for company liability for recurrent infringement (in the case of a company that hosts a server or multiple servers). Additionally, increased costs could lead to decreased profits and a resulting decrease in shareholder returns and share prices in the company's stock. A derivative effect among other similarly suited companies could cause a catastrophe in the arts industry.

XIX. GOOD RESOURCES FOR FURTHER PRACTICAL INFORMATION ABOUT INTERNET PIRACY, INCLUDING THE PIRACY OF VIDEO GAMES

While many of us have assumed that we could rely on highly publicized decisions like *Napster* and *Grokster* to protect intellectual property, video games have continued to be subject to Internet piracy. It is important that this issue be addressed, and thus, this section provides some good resources for education about this topic. There are multiple sources available on the Internet, but the following are particularly helpful. The Entertainment Software Association (ESA) has an active piracy program whose purpose is "to attack and reduce global entertainment piracy, estimated to cost the U.S. entertainment software industry billions of dollars every year. The program's primary components are enforcement, training, including education and enforcement programs in the United States and abroad."²³⁰ Another good source for recent developments concerning illegal file sharing of video games and copyright infringement in general is the Patent Arcade.²³¹ Wired Magazine is a fun publication, also available on the Internet, which has interesting articles presented in a context that teenagers can understand.²³² Also, the Software and Information Industry Association (SIIA) provides useful educational materials.²³³ For those of us that have frequent questions about the ever-changing interpretation of the Digital Millennium Copyright Act and about Internet piracy as a whole, Chilling Effects usually either has the answer or a link to another website with the answer. Chilling Effects is updated fairly regularly.²³⁴

XX. CONCLUSION

"Naturally, with so many people playing video games, there will always be a minority who want to steal them."²³⁵ Whether you are a single parent on a budget, a college freshman who just took out a student loan, or perhaps just someone who remembers when entertainment used to be a lot cheaper than it

230. Entertainment Software Association's Anti-Piracy Page, <http://www.theesa.com/policy/antipiracy.asp> (last visited July 30, 2008). The ESA also has numerous educational materials for educators and parents to use to help students understand copyrights and general intellectual property rights.

231. Patent Arcade, <http://www.patentarcade.com/> (last visited July 30, 2008).

232. Wired, <http://www.wired.com/> (last visited July 30, 2008).

233. Software and Information Industry Association, <http://www.sii.net/> (last visited July 30, 2008).

234. Chilling Effects Clearinghouse, <http://www.chillingeffects.org> (last visited July 30, 2008).

235. WALLACE WANG, STEAL THIS FILE SHARING BOOK: WHAT THEY WON'T TELL YOU ABOUT FILE SHARING, Chapter 13 (2004) (there are no page numbers in this book, so all references are by chapter only).

is today, the temptation is out there. Illegal file sharing is going to happen whether we like it or not. Thus, as one commentator has noted, policy makers have a choice:

[S]hape a future for peer computing or eliminate a novel form of technology. New uses of peer computing are already reshaping how Americans consume and distribute content. In many ways, innovations in peer computing might determine the future of communication and how information is distributed. On the other hand, attempts to eliminate illegal file-sharing merely drives peer computing in new and unpredictable directions. The recording industry's prosecution of P2P networks merely accelerated developments in anonymous use and IP blocking methods. While peer computing can be a vehicle for illegal file-sharing, let us not shut down innovation when so much potential waits.²³⁶

Some have suggested that piracy actually benefits the industry²³⁷ and that "[t]he Web was designed to be open and hackable from the start."²³⁸ I strongly disagree. To say that the Internet was designed to be open and hackable from the start would be like saying that a shopping mall was designed to have its doors broken into and that the stores' goods should be free for the taking. We should be mindful, however, that if a shopping mall was made to be *too* secure, then the security could interfere with the underlying retail purpose of the mall. The same is true of the Internet.

Surely, the Internet has changed our lives in profound ways that we will not fully understand in our lifetimes. For example, but for the Internet, I would not have met my husband via an online dating service and had my daughter. But for the Internet, I would not have been able to complete this paper. The Internet allows me to know whether my son turns his homework in to his teachers in a timely manner, thereby improving his grades and his overall academic experience. The list goes on and on for all of us. So, perhaps instead of describing the Internet as "hackable," the term we really should use to describe the Internet is "manageable." We will never build a big enough trap or cast a wide enough net to catch pirates who sail and pillage on the World Wide Web. My hope is simply that we all use some common sense to rethink the way that various forms of entertainment are produced, marketed, and distributed. While it may have been nice for all of us to enjoy the internet in blissful ignorance of the costs, it is now time for us to wake up.

236. Sirota, *supra* note 204, at 787.

237. *Id.* at 763.

238. Shah, *supra* note 53, at 703 (citing Paul Boutin, *Monkeying with the Web*, WIREd, Sept. 2005 at 34).

